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ABSTRACT

Hearings on reauthorization of the Higher Education Act, Titles VII and IX, are presented. Title VII concerns construction, reconstruction, and renovation of academic facilities. Title IX provides grants to colleges to support graduate study. To assist in maintaining academic facilities, Title VII provides grants to undergraduate and graduate facilities as well as loans to colleges for building and renovation. It is estimated that the physical plant of higher education has a replacement value of $200 billion, and 20% of that plant needs replacement or renewal, with a total cost of $40 billion. While it is recommended that tax-exempt financing for public and private college facilities be retained, testimony suggests that a small percentage of colleges have been able to obtain private financing to replace/renew facilities. The future of the college housing program is also considered in the hearings. In the area of graduate study, a bill, H.R. 2199, has been proposed to provide funds on a competitive basis to colleges to set up graduate fellowship programs for specific disciplines of national needs. Another bill, H.R. 6379, would improve the system for providing aid to graduate students. The text of both bills is appended. (SW)

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REAUTHORIZATION OF THE HIGHER EDUCATION ACT

Title VII (Construction and Renovation of Academic Facilities); Title IX (Graduate Education); Overview

Volume 9

HEARINGS

BEFORE THE

SUBCOMMITTEE ON POSTSECONDARY EDUCATION

OF THE

COMMITTEE ON
EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

FIRST SESSION

HEARINGS HELD IN WASHINGTON, DC, SEPTEMBER 11 AND 12 AND OCTOBER 1, 1985

Serial No. 99-51

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CONTENTS

Hearings held in Washington, DC, on: Page
- September 11, 1985 1
- September 12, 1985 73
- October 1, 1985 217

Text of H.R. 2199 179

Text of H.R. 6379 187

Statement of:
- Aery, Dr. Shaila, commissioner, Higher Education Coordinating Board of Missouri 54
- Boyd, Dr. Willard L., president, Field Museum of Natural History, Chicago, IL 174
- Cerveny, John, president, student government, Rensselear Poly-Technical Institute 170
- Chelstrom, Marilyn, president, Robert Taft Institute 76
- Clynch, Dr. Edward J., associate professor and head, department of political science, Mississippi State University 158
- Cramer, John, statement on behalf of the American Bar Association, section of legal education, the Association of American Law Schools, and the Law School Admission Council; and Mr. Millard Rude 116
- DiBiaggio, Dr. John, president, Michigan State University 2
- Fox, Edward A., president, Student Loan Marketing Association 32
- Gardner, David Pierpont, president, University of California 218
- Green, Hon. Bill 74
- Hayes, Dr. Kenneth P., University of Maine 99
- Lesesne, Dr. Joab, president, Wofford College, Spartanburg, SC 19
- Lieberman, Gerald J., professor, Standord University 95
- McCune, Dr. Ellis, president, California State University—Hayward 90
- Meier, Dr. Wilbur, Jr., dean of the college of engineering, the Pennsylvania State University 43
- Mills, Francis F., director of financing resources, Boston College 50
- Petillo, Msgr. John J., president, Seton Hall University, South Orange, NJ 28
- Ryan, Father Edmund, S.J., executive vice president, Canisius College 103
- Sample, Dr. Steven, president, State University of New York 152
- Sandson, Dr. John I., M.D., dean, Boston University School of Medicine 134
- Taft, Hon. Robert A., Jr 75
- Walter, Pro. Paul H.L., department of chemistry/physics, Skidmore College 164

Prepared statements, letters, supplemental materials, et cetera:
- Aery, Dr. Shaila, commissioner, coordinating board for higher education, State of Missouri, prepared statement of 58
- American Association of Retired Persons, prepared statement of 237
- Bowie, Walter C., D.V.M., Ph.D., dean, the Tuskegee Institute School of Veterinary Medicine, prepared statement on behalf of the Association of Minority Health Professions Schools 70
- Boyd, Dr. Willard L., prepared statement on behalf of the Associated Natural Science Institutions 175
- Cerveny, John, prepared statement on behalf of the National Coalition of Independent College and University Students 172
- Chelstrom, Marilyn, president, the Robert A. Taft Institute of Government, prepared statement of 78
- Clynch, Edward J., department of political science, Mississippi State University, prepared statement of 160
- Coleman, E. Thomas, a Representative in Congress from the State of Missouri, opening statement of 89

Page

Prepared statements, letters, supplemental materials, et cetera—Continued

Courant, Paul N., letter to Hon. William D. Ford, dated May 30, 1985 210
Cramton, Roger C., prepared statement with appendixes, on behalf of the Joint Task Force on Federal Financial Assistance to Law Students 119
DiBiaggio, John, president, Michigan State University, prepared statement on behalf of the Association of American Universities and the National Association of State Universities and Land-Grant Colleges 5
Fox, Edward A., president and chief executive officer, Student Loan Marketing Association, prepared statement of 35
Gardner, David Pierpont, president, University of California, prepared statement of 222
Green, Hon. Bill, a Representative in Congress from the State of New York, prepared statement of 75
Hayes, Dr. Kenneth P., prepared statement on behalf of the National Education Association 101
Johnson, Lawrence C., letter to Hon. William D. Ford, dated September 30, 1985, enclosing a prepared statement 193
Lear, W. Edward, letter to Hon. Bill Ford, dated September 30, 1985, enclosing a statement 64
Lesesne, Dr. Joab, president, Wofford College, prepared statement on behalf of the National Association of Independent Colleges and Universities, et al 22
Lieberman, Gerald J., professor, Stanford University, prepared statement of 97
Locke, Hubert G., letter to Hon. William D. Ford, dated June 12, 1985, with attachment 206
McCune, Dr. Ellis E., president, California State University, prepared statement of 92
Meier, Wilber L., Jr., dean, College of Engineering, Pennsylvania State University, prepared statement of 45
Mills, Francis F., director of financing resources, Boston College, prepared statement of 52
Nalbandian, John, letter to Hon. William D. Ford, dated June 5, 1985 203
Petillo, Msgr. John J., chancellor, Seton Hall University, South Orange, NJ, prepared statement of 30
Public Service Fellowship Program, list of letters in support of 214
Ryan, Father Edmund, S.J., prepared statement on behalf of the Association of Jesuit Colleges and Universities 106
Sample, Steven, president, State University of New York at Buffalo, prepared statement on behalf of the American Council on Education, et al 155
Sandson, Dr. John I., prepared statement on behalf of the Association of American Medical Colleges 136
Smith, Robert L., letter to Hon. William D. Ford, dated September 30, 1985, enclosing a statement 66
Walter, Paul H.L., prepared statement on behalf of the American Association of University Professors 167

REAUTHORIZATION OF THE HIGHER EDUCATION ACT

Title VII (Construction and Renovation of Academic Facilities); Title IX (Graduate Education); Overview

Volume 9

WEDNESDAY, SEPTEMBER 11, 1985

House of Representatives,
Subcommittee on Postsecondary Education,
Committee on Education and Labor,
Washington, DC.

The subcommittee met, pursuant to call, at 1:30 p.m., in room 2175, Rayburn House Office Building, Hon. William D. Ford (chairman of the subcommittee) presiding.

Members present: Representatives Ford, Bruce, Atkins, Coleman, Goodling, and Roukema.

Staff present: Thomas Wolanin, staff director; Maryln McAdam, legislative associate; Kristin Gilbert, legislative associate clerk; and Rose DiNapoli, Republican legislative associate.

Mr. **Ford**. The committee will be in order.

Today, we convene the subcommittee for the 29th hearing on the reauthorization of the Higher Education Act. The subject of this afternoon's hearing is title VII of the Higher Education Act, Construction, Reconstruction, and Renovation of Academic Facilities.

The purpose of this title is to provide funding to colleges and universities to assist them in maintaining their academic facilities.

Parts A and B of title VII provide for grants for undergraduate and graduate facilities respectively and part C for loans to institutions for building and renovation purposes.

While the goals of this title are laudable, the truth is that it is unlikely to receive adequate funding in its current form to meet the severe needs of higher education for access to very large amounts of capital in the area of equipment and facilities.

One estimate is that it would take $40 billion to bring academic facilities up to acceptable standards in terms of their need for new or renovated facilities.

What is needed are new ideas and new alternatives. Under the current budget constraints, it is simply impossible for the Federal Government to directly infuse the amounts of money that are needed to address this problem into higher education.

We must come up with cost-effective alternatives that will allow modest amounts of Federal dollars to generate large amounts of private financing to meet the soaring demands we face. I hope that our witnesses today will be able to provide us with suggestions that can lead to these types of new initiatives.

Finally, we will also have a witness today who will address the college housing program. College housing funds are authorized under the Housing Act of 1950. However, since 1968 responsibility for administering the program has been in the Office of Education and subsequently the Department of Education. This afternoon, we will also consider the future role of this program.

The first panel is Dr. John DiBiaggio, president of Michigan State University; Dr. Joab Lesesne, president, Wofford College; Msgr. John J. Petillo, president, Seton Hall University; and Edward A. Fox, president, Student Loan Marketing Association.

Dr. DiBiaggio has to get back to talk to his Governor about money. If you have any questions for him, we will take them immediately after his testimony, so he can leave.

STATEMENT OF DR. JOHN DiBIAGGIO, PRESIDENT, MICHIGAN STATE UNIVERSITY

Mr. DiBiaggio. It is indeed an honor and a privilege.

Mr. Ford. Pardon me, did you have an opening statement, Marge?

Mrs. Roukema. I want to briefly welcome Monsignor Petillo, the Chancellor of Seton Hall University in our State of New Jersey. We are certainly very proud of the experience, and the kind of leadership that the monsignor has been giving to the university.

I know he is going to make a fine presentation and contribution here, and Mr. Chairman, I want to thank you for this long series of hearings that you have had. I don't think that there is going to be in any way any limitations on our ability to fashion the right kind of legislation in these trying times.

Monsignor, thank you for being here, and lest anyone doubt the high quality and reputation of Seton Hall University, you and I had the privilege in 1983 of welcoming President Ronald Reagan as your commencement speaker. Seton Hall was selected for that distinctive honor in 1983.

Mr. Ford. Thank you.

Doctor.

Mr. DiBiaggio. It is indeed an honor and privilege to appear before your committee to testify on the reauthorization of the Higher Education Act, and particularly on title VII.

We all recognize clearly that title IV is the most important title in that act, since it provides about 90 percent of the funding out of the act, and assures access to educational opportunity to all of our citizens, and we certainly don't want to in any way imply that we don't appreciate the importance of that title.

However, the other titles in the act are also very important, even though they have fewer dollars in them, at least at this time.

Title VII, of course, is extraordinarily important to our institutions. To appreciate the dimensions of the problem that we are dealing with, as you stated earlier, of the 2.3 billion square feet which we claim to have in higher education physical plant, the replacement value of that physical plant is about $200 billion.

We estimate as best we can that 20 percent of it needs replacement, or some $40 billion.

In 1981, a survey by AAU found that universities are able to meet only half of their needs to renovate and replace their research laboratories at this time. In a more recent NSF study, showed that 25 percent of research instrumentation now in use is clearly obsolete.

The average age of the equipment in leading research at universities is twice that of the equipment in industrial laboratories.

At my own institution, Michigan State University, that you are very familiar with, Mr. Chairman, we estimate that we have a $35 million shortfall or need in high-priority renovation projects for research in graduate education alone, and in fact, if we look at our entire problem, it exceeds something like $100 million, we think.

We cannot continue to sustain excellence in our teaching and our research efforts without first-class facilities, and the personnel that are attracted because of those facilities.

Well, you might ask, how did we get ourselves into such a problem, and that is a fair question. You all recognize that our physical plants expanded, in fact doubled, from 1950 to 1965.

We did that in response to a critical need for educational opportunity and for research findings by the Nation's economy. The fact of the matter is that since those buildings were built in the fifties in great part, they are now over 30 years of age, and quite clearly, facilities of that age would require some upgrading.

In addition to that, of course, while our facilities were increasing, the available funds for maintaining those facilities was decreasing, a factor of an economy that could not provide us all the resources that we required, and in facing that problem, we decided to emphasize our academic programs rather than in many instances maintaining facilities or providing adequate support staff, and in other needed services.

And so, in essence, while the buildings were increasing in numbers and in size, the funds available for maintaining and renovating those facilities were decreasing.

Couple that with the rapid advances that have occurred in science during that period of time, and the new demands that those advances have generated, you can appreciate the problem we face.

We simply cannot deal, work in buildings any longer with the kind of sophisticated instrumentation we require today without adequate temperature controls, for instance, air purification mechanisms, and even adequate electrical systems.

The Congress has appropriately mandated many environmental and safety requirements which we must meet, and we cannot meet with facilities as they currently exist.

Between 1960 and 1970, Mr. Chairman, as you are aware, the National Science Foundation leveraged about $188 billion into $500 million of facilities funding. The total Federal funding, indeed, from 1957 to 1970, approximated three-quarters of a billion dollars in facilities.

After 1970, all Federal funding stopped, and so the problem was further exacerbated. What can we do about it? It is not enough to define the problem, but I do so so you can recognize the difficulties we face.

Clearly, what is required now is a prompt and sustained, coordinated action by Government, universities, and industry. Some things have already been done.

There are actions that are proposed, or currently under way, that you are very much aware of. ERTA provided tax benefits which were very important on industry equipment donations.

There were tax credit industrial investments in academic research and development. The Fuqua bill, 2383, provides a mechanism for university research facility funding, and we are very much encouraged by the potential of that particular bill.

The Kildee bill, 143, includes moneys for renovation of academic facilities as well. For the first time in 14 years, there was $28 million appropriated this year through title VII for academic facilities, and we very much appreciate that, but it is a drop in the bucket when you recognize the problem we are dealing with.

It is important that we preserve access to tax-exempt bond financing for public and particularly for private institutions in this Nation. I would hope that you will support continuation of that funding, and that very important provision, with your colleagues who serve on Ways and Means.

Some recommendations were submitted to you by the American Council on Education on April 30 to improve title VII of the Higher Education reauthorization bill.

You will review those, but let me point out a few, and tell you that the community as a whole supports those recommendations. One called for a priority of renovation over new construction. We think renovation is a more critical problem to us than is new construction, and we think that that priority therefore is appropriate.

But we also feel we should expand the general purposes portion of that act to reflect new facilities demands. For instance, hazardous waste disposal.

It called for providing flexible matching grants in part B for research facilities, based as we always urge, on peer review judgments of the quality of education and research programs to be conducted in that particular facility.

Mr. Chairman, those of us in the higher education community realize fully that it would be absolutely impossible for the Federal Government to meet all of our needs under this particular act.

So, therefore, we think we have a promising new option to suggest, and we hope that you will explore this option with us further through our various associations, and through the other interested agencies.

We think it might be an appropriate approach to give Sallie Mae authority to enter academic facilities and instrumentation markets, purchase bonds, and make loans to our institutions.

That would provide us a mechanism which would not be overly expensive to our Federal Government, and not overburden the budget, and yet allow us to begin to address this very serious problem.

If you did that, sir, you would have to establish a federally sponsored program, a loan insurance or credit enhancement to expand access to facilities funding, especially for those smaller, financially weaker institutions that couldn't quality otherwise.

Some of us would have no problem qualifying because of the magnitude of our institutions and the dollars we have available and our ratings, but some of the smaller ones would have a problem unless you were to provide a loan insurance or credit enhancement.

Such a program would be a natural extension of Sallie Mae's current activities, would provide a new source of loan capital, and would provide access to financing for institutions which now have great difficult gaining such financing.

It is an exciting idea, we think, and needs a lot of fleshing out, but I am pleased that Mr. Fox is on this panel with me and will be able to talk more in detail as to what might be required, about the potentials for this program.

I don't pretend to understand all the ramifications of banking terms that he would, but it certainly is a mechanism that allows us to deal with a very, very difficult problem.

Finally, Mr. Chairman, it is clear that the Department of Education should be gathering more data on a more regular basis on the status of academic facilities in this country and the implications of those facilities and their disrepair for higher education.

I think your encouragement of the collection of that data and our participation in that activity would be helpful, so you could make your judgments more effectively in the future.

We appreciate your interest in this title, Mr. Chairman, and we pledge our support to provide you with any information that you require, and a commitment to continue to do all that we can to assure excellence in all of our teaching and research programs.

Thank you.

[The prepared statement of John DiBiaggio follows:]

PREPARED STATEMENT OF JOHN DIBIAGGIO, PRESIDENT, MICHIGAN STATE UNIVERSITY, ON BEHALF OF ASSOCIATION OF AMERICAN UNIVERSITIES AND THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES

Mr. Chairman and Members of the Subcommittee, I am John DiBiaggio, President of Michigan State University. I am pleased to have this opportunity to appear before you to testify on Title VII of the Higher Education Act, Construction, Reconstruction, and Renovation of Academic Facilities. I appear before you on behalf of the Association of American Universities and the National Association of State Universities and Land-Grant Colleges.

Our nation's colleges and universities are a fundamental national resource. Each year they provide over 12 million students with a broad range of occupational and technical training, liberal arts education, and advanced graduate and professional education. In addition to carrying forward, through new classes of students, the breadth and richness of our intellectual and cultural heritage, our colleges and universities are essential for the creation and dissemination of new knowledge. They conduct over 50% of the nation's basic research, and our graduate programs educate the succeeding generations of teachers, scholars, and scientists upon which our continued competitiveness as a nation will depend.

Perhaps the most serious problem which these institutions face in the coming decade is the deterioration of their academic facilities. Our physical plant is old, outdated, in urgent need of renovation and repair. Its deterioration threatens our teaching and undermines our research. The problem demands a prompt and sustained response. The response must be a joint effort by government—both federal and state, institutions, and industry.

DIMENSIONS OF THE PROBLEM

The physical plant of higher education is vast, comprising 2.3 billion square feet of physical plant with a replacement value of $200 billion. Twenty percent of that plant needs replacement or renewal—a total cost of $40 billion. Added to that are annual maintenance needs of $5 billion.

The accumulation of facilities needs is seriously threatening every aspect of higher education. Teaching facilities are in need of repair; many campuses are unable to carry out selective expansion needed to accommodate new course demands. Libraries, our essential repositories of existing and accumulating knowledge and the active laboratories of scholars, need to be renovated to incorporate rapidly developing information systems; many have pressing needs for environmental controls essential for the preservation of library materials.

The need for repair and renovation of research facilities is especially critical. A 1981 survey by the Association of American Universities found that universities were able to meet only about half of their accumulating needs to replace, modernize, and renovate their research laboratories (Appendix I). A recent NSF survey found that 25% of research equipment now in use is obsolete. More than 90% of the department heads responding reported that "important subject areas" of research could not be addressed because their laboratories lacked the necessary instrumentation.

At Michigan State University, we have identified nearly $35 million in high priority renovation projects needed for our research and graduate education programs ranging from the renovation of the laboratories, classrooms, and support facilities in our Natural Science Building to the construction of an all-weather tunnel connecting 7 key research buildings. This tunnel would allow us to consolidate analytical laboratory capabilities to achieve one major state-of-the-art facility serving seven research buildings; the cost is $2.5 million.

Or consider the far-reaching benefits—and, unfortunately, and out-of-reach cost—of the seemingly pedestrian renovation of heating and cooling systems: the installation of special integrated heating and cooling energy lines would permit us to upgrade the computer capability of three research facilities in a more cost-effective manner than renovating each facility separately; yet even this cost-effective price tag is $2 million.

This $35 million list covers only our highest priority projects in research and graduate education. Added to it is almost $74 million in deferred maintenance needs on the campus. The severity of the facilities problem at Michigan State is not atypical of our nation's campuses generally. In a statement made at a recent hearing on research facilities before the House Subcommittee on Science, Research and Technology, Chairman Walgren captured what is at stake for the nation: "The United States academic community has achieved a high level of excellence in the conduct of scientific inquiry. It is clearly in the national interest for that excellence to be maintained from the standpoint of international economic competition and national security. There is no way that excellence can be sustained without first class facilities and personnel. Thus, our standing in the world community depends on the physical state of our academic research facilities."

What is true for excellence in research is true for excellence in education: it requires first class facilities and personnel. Without first class facilities, it is difficult to recruit and retain first class faculty. Thus, the capacity of our colleges and universities to sustain excellence in teaching and research requires that we attend to the facilities problem now.

HOW THE FACILITIES PROBLEM AROSE

The size of our higher education system has increased at an enormous rate: higher education square footage doubled between 1950 and 1965 and doubled again by 1981. The rapid advances in science have generated new requirements for research facilities with more stringent temperature control, air purification, and electrical service. Congressionally mandated requirements for hazardous waste disposal and other environmental and safety requirements, requirements for removal of architectural barriers to the handicapped, the need for energy conservation—all have added to facilities needs.

Yet as these factors converged to place substantial demands on institutions for facilities renovation and renewal, federal funds to assist institutions disappeared. Title VII has not been funded for well over a decade. The drop in federal funding for academic research facilities has been especially severe.

Between 1960 and 1970, the National Science Foundation provided 977 grants totaling $188 million to assist in the construction of laboratories and the acquisition of equipment. This federal investment has richly repaid the nation in health, education, economic competitiveness, and national security. But this investment was not limited to federal dollars. Matching funds were required. The total value of facilities and instrumentation acquired with NSF assistance was $500 million, leveraging federal funds at a ratio of better than two-to-one.

Between 1957 and 1970, federal grant funds for graduate science facilities totaled approximately $3/4 billion (see Figure 1). The national investment from all sources was certainly several times that amount. But in 1970, federal funding essentially ceased. The link between federally funded research programs and the federal contribution to the capital facilities necessary to house and support that research was broken.

Figure 1

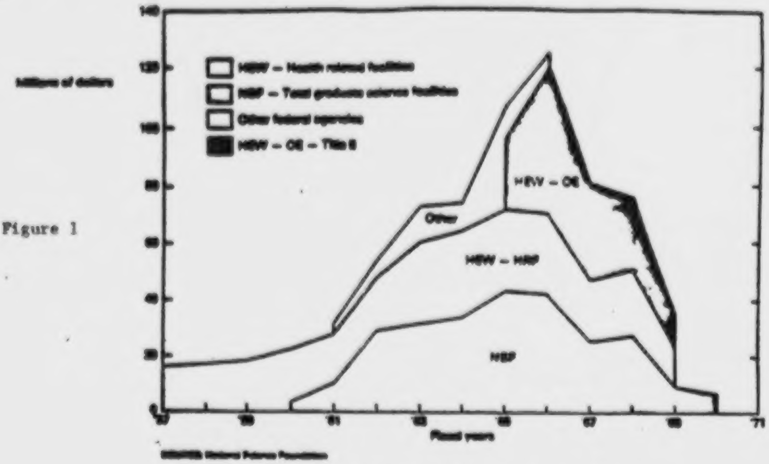

Figure 1. Total Federal Grant Funds for Graduate Science Facilities by Fiscal Years 1957-1970

When we abruptly ceased investing in facilities, we allowed the capital base of our national research programs to become a wasting asset. A substantial portion of the facilities that were constructed during the zenith of federal funding in the 1960's are now in need of repair and renovation. The costs to restore these aging facilities, plus the costs to meet new facilities requirements, have combined to produce the critical problem we are now confronting.

Hard pressed to meet short-term priorities, institutions have been unable on their own to make needed long-term capital investments.

HOW SHOULD WE RESPOND?

Because of the importance of the problem—no less than our competitiveness as a nation is at stake—and because of the magnitude of the problem—an estimated $40 billion in facilities needs, we must develop a coordinated strategy involving all parties with a vital stake in solving the facilities problem—colleges and universities, federal and state governments, and industry. The strategy must provide both prompt action and a sustained response.

Several encouraging actions are proposed or underway. ERTA provided permanent special tax benefits to encourage industry donations of research equipment to colleges and universities. ERTA created additional tax credits for industrial investment in academic R&D. Congressman Fuqua recently introduced H.R. 2383, the University Research Facilities Revitalization Act of 1985, which would provide new funding for academic research facilities through the federal mission agencies. Congressman Kildee has introduced H.R. 143, which, among other provisions, would provide for reconstruction and renovation of academic facilities. For the first time in 14 years, $28 million was appropriated this year for facilities funding through Title VII of the Higher Education Act.

The National Science Board is conducting a major review of the status of the nation's research facilities. The House Armed Services Committee, out of concern for national security, is addressing the academic research facilities problem. The National Science Foundation authorization legislation is being modified to provide for improved data gathering.

Colleges and universities are exploring new ways to secure funding for facilities and instrumentation. A major study on financing and managing university research equipment has just been completed (Appendix II). I should mention here that one of the findings of this study was the importance of tax-exempt bond financing for research instrumentation and facilities. Unfortunately, consideration is being given to withdrawing access by private colleges and universities to such financing. I hope that members of this committee will indicate to your colleagues on the Ways and Means Committee the importance of tax-exempt financing for addressing the academic facilities problems confronting both public and private institutions (Appendix III).

During the reauthorization of the Higher Education Act, we have the opportunity to reexamine Title VII as a mechanism for addressing facilities needs. There are several ways Title VII could be modified to address more effectively the current facilities needs of colleges and universities.

The American Council on Education recommendations for modifications in the Higher Education Act, submitted to the committee on April 30 on behalf of the community, contain several recommendations that would improve Title VII. I will briefly summarize the principal recommendations here:

Give priority to the renovation of existing facilities, awarding funds for new construction only where it is demonstrated to be more cost effective than renovation or where no alternative exists. The pressing need in higher education now and in the foreseeable future is not for great expansion but for repair and renovation of existing plants; fiscal constraints on both government and institutions require that this be accomplished as cost-effectively as possible.

Expand the general purposes to reflect current facilities needs such as new requirements for hazardous waste disposal and asbestos removal. Title VII needs to be responsive to new requirements placed on academic institutions, both by new government regulations and by new research and training demands.

Modify current law, which permits funds to be used for construction or renovation of facilities in response to unusual increases in enrollment, to permit institutions with extreme internal enrollment shifts to renovate facilities. Although total institutional enrollments have generally leveled off, dramatic internal shifts have been occurring that generate new facilities needs.

Provide flexible matching grants for graduate education and research facilities through Part B. This matching provision will substantially increase the impact of federal funds and will require institutions to reallocate their resources to respond to the facilities problem.

Adopt criteria for the competitive allocation of funds through Part B based on judgments by peer review panels of the quality of the educational and research programs to be conducted in the facility, and the impact of the funds in overcoming existing deficiencies. These criteria will assure that funds are awarded through competitive proposals judged on the basis of scientific merit and cost-effective impact of the award.

Reduce the repayment period for Part C loans from 50 to 30 years and adjust the interest rate to reflect current interest rate trends. These changes will reduce federal costs while continuing to provide loan capital to colleges and universities.

Another important function that should be carried out by the Department of Education is the systematic collection of data concerning the status of academic facilities. NSF is assuming new data gathering responsibilities concerning research facilities. The Department of Education should gather complementary information on academic facilities.

Recent discussions with representatives of the Student Loan Marketing Association have generated some interesting new options that we believe merit further consideration by the committee. These options share a common objective of providing essential facilities capital to institutions in a way that minimizes the cost to the federal government. In a sense, the government would be using its capital principally as a means of leveraging greater facilities funding overall. These programs would therefore serve as a cost-effective complement to the federal grant funding needed for a prompt response to the immediate facilities crisis.

As a first step, we urge that Sallie Mae be encouraged to enter the academic facilities and instrumentation market. Providing the authority for Sallie Mae to purchase facilities bonds and provide other credit support for such bonds and to make or purchase loans for facilities would be a natural extension of Sallie Mae's current activities.

The benefit of Sallie Mae entering the facilities and instrumentation market could be significantly enhanced by a federally-sponsored program of loan insurance or credit enhancement. Establishing a loan insurance program separate from the actual funding of loans would effectively expand financing sources for academic facilities and equipment, especially for smaller, financially weaker institutions. There are a number of variations on such a program that would be possible, and I would be happy to provide the committee with further details if you wish.

Annual interest grants authorized under Section 734 might play an important role in new initiatives to provide an affordable source of private capital for facilities. We therefore urge retention of this section and examination of ways that it might be modified to facilitate access to loan capital under any new programs that might be authorized.

Underlying all of the recommendations I have summarized above and the other initiatives to which I have alluded is the need for a multifaceted approach to an extremely serious problem. We need to have government, institutions, and industry working jointly through a number of programs to meet the massive and diverse facilities needs of colleges and universities. We need programs that will provide prompt, flexible, and sustained action. Title VII is an essential part of this overall strategy. I believe that the modifications and additions I have outlined above will provide Title VII with the mechanisms to fulfill its role effectively.

I thank the committee for this opportunity to testify on this most critical issue. I would of course be happy to answer any questions.

[Appendix I]

THE NATION'S DETERIORATING UNIVERSITY RESEARCH FACILITIES

EXECUTIVE SUMMARY

Objectives of the survey:

This survey of 15 leading universities had three objectives:

In the institutions surveyed, document expenditures for research facilities and major ($100,000 or more) equipment, without regard to source of funds, over the last four years in the following six fields: Biological Sciences; Chemical Sciences; Earth Sciences; Engineering; Physics; and Medical Schools (10).

Provide responsible estimates, prepared by those universities, of expenditures for research facilities and major equipment that would be required over the next 3 years to meet the research and training needs of only current faculty.

From researchers and department heads, acquire assessments of the major consequences for science, industry, and government if the accumulating facilities needs of their institutions are not addressed.

FINDINGS

In many of the science and engineering departments surveyed, a substantial backlog of research facilities and equipment needs is accumulating. Projected funding needs over the next three years equal almost twice the level of expenditures by universities for their research laboratories and equipment over the past four years. Already, institutions often are unable to provide their basic science and engineering researchers and students with either the modern laboratories or equipment needed to conduct state-of-the-art research and education programs.

The loss of federal contributions to the support of research facilities and the absence of compensatory sources of support has forced many institutions to renovate and repair only those facilities in greatest need. Even this work often is carried out in a necessarily piecemeal fashion which is uneconomical over the long term. Working under such conditions, researchers unavoidably compromise their productivity and future competitiveness.

Relatively few construction projects have been completed in recent years in a majority of the physical sciences and engineering departments surveyed. Many institutions estimate substantial needs for new laboratories, for the expanded modernization and repair of old laboratories and for modern research equipment. Details are provided in the following report and the appendices. The survey's principal findings are the following:

In the last four years, for the six fields surveyed, fifteen leading universities together spent $400 million from all sources for facilities and major equipment. Half of those expenditures was for a relatively small number of new construction projects; the remaining half, spread over a larger number of generally less costly funding projects, was for facility modernization, major repair and renovation, and special purpose research equipment.

In the next three years, the 15 universities estimate they should spend almost twice as much ($765 million) just to provide the necessary research facilities and special research equipment for current faculty only. These estimates are in current dollars and, therefore, do not include the added effects of inflation.

New construction to replace outmoded facilities accounts for almost 60 percent of total projected funding requirements across all fields.

In addition, substantial needs for major research equipment were identified in all six fields. These equipment estimates include only major items costing at least $100,000. As the 1980 AAU report to the National Science Foundation found, most departments also have serious deficiencies of less costly analytical instrumentation and support equipment.

RECOMMENDATIONS

The problems of obsolescence in the nation's university research facilities have been growing for more than a decade. To solve them, a new national investment strategy is needed. That strategy should provide direct, balanced support for university facilities from federal agencies and provide investment incentives designed to involve industry, the states, and the universities in a coordinated effort. The following steps are suggested as starting points:

1. Key Executive agencies should develop a mechanism to periodically assess the condition of university research laboratories and the consequences for the nation of that condition. Such assessments should involve the Office of Science and Technology Policy, the National Science Foundation, the Department of Defense, the Department of Energy, the Department of Health and Human Services, the Department of Agriculture and the National Aeronautics and Space Administration. The views of industry and the universities also should be solicited.

If the initial review corroborates the assessment of this survey the following recommendations should be considered:

2. The facilities and equipment program earlier proposed to be undertaken by the National Science Foundation but deferred should be restored as a priority initiative in FY 1983.
3. The Department of Defense, Department of Energy, the National Aeronautics and Space Administration, the Department of Health and Human Services, and the Department of Agriculture should establish research instrumentation and facilities rehabilitation programs targeted on the fields of science and engineering of primary significance to their missions. The National Science Foundation should assist in the development, implementation, and coordination of those activities.
4. Incentives should be provided to encourage industries and the states to join with universities and the federal government in renewing the nation's university research laboratories.
5. Interest costs incurred in the construction, modernization, renovation, and repair of facilities in which federally supported research programs are carried out should be allowable indirect costs under OMB Circular A-21.

[Appendix II]

FINANCING AND MANAGING UNIVERSITY RESEARCH EQUIPMENT

SUMMARY AND RECOMMENDATIONS

Contemporary science and technology are inconceivable without the array of instruments and other research equipment available today. Recent years, however, have seen steady erosion of our universities' ability to acquire and maintain equipment that qualifies as state of the art—the best generally available. Without this new equipment, advances in many scientific disciplines cannot occur. The situation has reached the point where it threatens the strength of the nation's research enterprise and the quality of education of new scientists and engineers.

The project summarized here was designed to seek ways to ensure that the funds available for scientific equipment in universities are used at maximum efficiency. We examined federal and state regulations and practices, management practices in universities, and sources and mechanisms of funding. We reached the following broad conclusions:

Many actions can be taken that clearly would enhance efficiency in the acquisition, management, and use of research equipment by universities, and they are specified in our recommendations. The overall problem is so large, however, that it cannot be properly addressed without substantial, sustained investment by all sources—federal and state governments, universities, and the private sector.

SOURCE OF THE PROBLEM

The situation has been documented in a succession of studies dating from the early 1970s. The most recent and most comprehensive study is the National Science Foundation's National Survey of Academic Research Instruments, covering the years 1982-1983. Newly published results of the survey show in part that:

Of the university department heads surveyed, 72 percent reported that lack of equipment was preventing critical experiments.

Universities' inventories of scientific equipment showed that 20 percent was obsolete and no longer used in research.

Of all instrument systems in use in research, 22 percent were more than 10 years old.

Only 52 percent of instruments in use were reported to be in excellent working condition.

Of university department heads surveyed, 49 percent rated the quality of instrument-support services (machine shop, electronics shop, etc.) as insufficient or nonexistent.

CONTRIBUTORY TRENDS

Such difficulties stem from several interrelated trends. As scientific instruments have grown steadily more powerful and productive, their initial costs have significantly outpaced the general rate of inflation. One industrial laboratory, for example, found that the cost of keeping its stock of research equipment at the state of the art rose 16.4 percent per year during 1975-1981, while the consumer price index rose 9.9 percent per year. The growing capabilities of equipment also entail higher costs for operation and maintenance. The rapid pace of development, moreover, has shortened the technologically useful life of equipment; instruments today may be superseded by more advanced models in five years or less. And for more than 15 years, the funds available from all sources have failed consistently to reflect the rising costs and declining useful lifetimes of academic research equipment.

Research project grants, the leading source of academic research equipment, have only slightly outpaced inflation in recent years. Individual grants averaged about $94,000 at the National Science Foundation (NSF) in 1985 and $133,000 at the National Institutes of Health (NIH). Such grants can accommodate instruments of only modest cost. Benchtop equipment priced at $50,000 or more is common, however, and research in a number of fields is relying increasingly on equipment that costs from $100,000 to $1 million.

Trends in funding of scientific equipment in universities have long been dominated by federal spending, which accounted for 54 percent of the equipment in use in 1982-1983; the universities themselves are the next most important source of support and provided 32 percent of such funding. States directly funded 5 percent of the cost of the equipment in use in 1982-1983, individuals and nonprofit organizations funded 5 percent, and industry funded 4 percent. Federal funding of academic research—including the associated equipment—grew at an average annual rate of 15.7 percent, in constant dollars, during 1953-1967, but the rate fell to 1.6 percent during 1968-1983.

Besides its role in support of research, the government was a major contributor to the universities' massive capital expansion of the 1950s and 1960s, which included substantial amounts of scientific equipment. Again, however, the rate of federal investment turned downward. The government's annual spending on academic R&D facilities and equipment, in constant dollars, fell some 78 percent during 1966-1983.

RESPONSES TO THE PROBLEM

Both academic and federal officials responded to essentially level funding by supporting people over investment in capital equipment. The fraction of research-project support allocated to permanent university equipment by the National Institutes of Health declined from 11.7 percent in 1966 to an estimated 3.1 percent in 1985. At the National Science Foundation the fraction fell from 11.2 percent in 1966 to an average of 7.1 percent during 1969-1976. The federal mission agencies' support for research equipment declined similarly, although exact data are not available.

Efforts to ease the universities' serious difficulties with scientific equipment began to appear in the early 1980s. NSF increased its investment in academic equipment from 11 percent of its university R&D budget in 1978 to an estimated 17.5 percent in 1985. The Department of Defense launched a special five-year university instrumentation program, totaling $150 million, which is projected to run through 1987. The Department of Energy began a special $30 million program scheduled to end in 1988. The federal and state governments adopted tax incentives designed to encourage contributions of equipment by its manufacturers. State governments began to increase their funding of equipment for state colleges and universities and have initiated a range of development activities designed in part to attract industrial support for R&D in their universities.

The expanded federal investments were the result, in part, of the efforts of the Interagency Working Group on University Research Instrumentation, which was organized in mid-1981 to focus high-level agency attention on the university instrumentation problem. Its members were senior officials drawn from each of the six major agencies supporting research in universities—the National Science Foundation, the National Institutes of Health, the National Aeronautics and Space Administration, and the Departments of Agriculture, Defense, and Energy.

BACKGROUND OF THE STUDY

Although these initiatives are welcome, they clearly are not sufficient. Officials in academe and government agree that the equipment problem is critical and steadily growing and that ways to use existing resources more efficiently must be explored. In July 1982 at the request of the Interagency Working Group, the Association of American Universities, the National Association of State Universities and Land-Grant Colleges, and the Council on Governmental Relations convened an ad hoc planning committee to consider whether a special effort was needed to address the following questions:

Could changes be made in federal or state laws, regulations, or policies that would enhance the efficiency of acquisition, management, and use of academic research equipment?

What more can universities do to improve the way they acquire, manage, and use research equipment?

Does debt financing hold significant untapped potential for universities as a means of acquiring new research equipment?

Can present tax incentives for the donation of research equipment to universities be revised to increase support from industry?

Are there alternative methods of direct federal funding of research equipment that would yield a better return on the federal investment?

The resulting analysis was carried out jointly by the three associations with funding from the six federal agencies and the Research Corporation. Substantive direction for the study was provided by a seven-member Steering Committee chaired by Richard Zdanis, Vice Provost of John Hopkins University. Much of the field research was done by a three-member team: Robert Bock, Dean of the Graduate School at the University of Wisconsin; David Litster, Director of the Center for Materials Science and Engineering at MIT; and Julie Norris, Assistant Provost of the University of Houston. This team visited 23 universities and governmental and industrial laboratories; they met with more than 500 faculty investigators, department chairman, research and service center directors, deans and chief administrators, or the functional equivalents in government and industry. (A list of the places visited is appended to this summary.) The team and the firm of Coopers & Lybrand each produced background reports for the project.

RECOMMENDATIONS

The actions recommended below, as we stated at the outset, would clearly enhance efficiency in the acquisition, management, and use of academic research equipment. We would like to emphasize, however, that even if all these recommendations are acted upon, the universities' equipment needs are so large that they cannot be met without substantial increases in funding. Modernization, moreover, cannot be a one-time effort. Continuing investment will be required based on the recognition that laboratories in many fields of science have to be reequipped at intervals of five years or less. The universities, the states, and industry must share with the federal government the responsibility for modernization and long-term maintenance of the quality of scientific equipment at the nation's universities.

The recommendations that follow appear in the topical order employed in the full report: the federal government, the states, the universities, debt financing by universities, and private support for equipment.

THE FEDERAL GOVERNMENT

The federal government has been the major funder of research equipment in universities during the past four decades. Current federal funding mechanisms, however, do not comprise adequate means of regularly replacing obsolete or worn-out equipment with state-of-the-art equipment. Regulatory and procedural difficulties complicate the problem.

We recommend:

1. That the heads of federal agencies supporting university research issue policy statements aimed at removing barriers to the efficient acquisition, management, and use of academic research equipment. Few federal regulations, as written, contribute directly to the equipment problem. Inconsistent interpretation of regulations by federal officials, however, complicates the purchase, management, and replacement of research equipment and leads to unnecessarily conservative management practices at universities. Desirable actions are summarized in the recommendations below.
2. That federal agencies more adequately recognize and provide for the full costs of equipment, including operation and maintenance, space renovation, service contracts, and technical support by providing these costs in project grants and contracts or ensuring that recipients have provided them. Accepting universities' payment of costs such as installation, operation, and maintenance as matching funds on programs that require matching contributions by universities.
3. That federal agencies adopt procedures that facilitate spreading the cost of more expensive equipment charged directly to research-project awards over several award-years and allow the cost and use of equipment to be shared across award and agency lines. Individual research-project grants and contracts normally can accommodate equipment of only modest cost. Investigators, moreover, have difficulty combining funds from awards from the same or different agencies to buy equipment.
4. That federal auditors permit universities to recover the full cost of nonfederally funded equipment from federal awards when they convert from use allowance to depreciation. Office of Management and Budget (OMB) Circular A-21 permits such conversion as well as recovery of full cost. Auditors of the Department of Health and Human Services, however, permit recovery only as if the equipment were being depreciated during the time it was in fact covered by the use allowance. This practice, in effect, denies recovery of full cost.
5. That the Office of Management and Budget make interest on equipment funds borrowed externally by universities unequivocally an allowable cost by removing from OMB Circular A-21 the requirement that agencies must approve such charges. Interest on externally borrowed funds has been a permissible cost since 1982 at the discretion of the funding agency, but agencies have shown significant reluctance to permit it. The perception of inability to recover interest costs may lead university officials to decide against seeking debt financing for equipment.
6. That all federal agencies vest title for research equipment in universities uniformly upon acquisition, whether under grants or contracts. Federal regulations on title to equipment vary among agencies, and such variability inhibits efficient acquisition, management, and use of equipment. Without assurance of title, for example, investigators hesitate to combine university funds with federal funds to acquire an instrument not affordable by a single sponsor.
7. That the Office of Management and Budget make federal regulations and practices governing management of equipment less cumbersome by setting at $10,000 the minimum level at which universities must screen their inventories before buying new equipment and, above that minimum, permitting universities and agencies to negotiate different screening levels for different circumstances. Raising the capitalization level for research equipment to $1,000 in OMB Circulars A-21 (now at $500) and A-110 (now at $300) and giving universities the option of capitalizing at different levels.
8. That the Department of Defense eliminate its requirement that the inventory of the Defense Industrial Plant Equipment Center (DIPEC) be screened for the availability of specialized scientific equipment requested by universities before new equipment is purchased. The descriptions of equipment in the DIPEC inventory do not permit a federal property officer to determine whether a scientific instrument in the inventory is an adequate substitute for the one requested. Hence, the requirement for screening is wasteful for both universities and the government.
9. That other federal agencies adopt the NIH and HSF prior approval systems. Purchases of equipment with federal funds ordinarily must be approved in advance by the sponsoring agency. Purchases can be approved by the university, however, under the NIH Institutional Prior Approval System and the NSF Organizational

Prior Approval System. These systems markedly improve speed and flexibility in acquiring equipment.

THE STATES

State governments act as both funder and regulator in regard to academic research equipment, and conflict between these roles is inherent to a degree in the relationship between the states and their public universities. Still, we believe that in many cases the states could combine these broad roles more rationally and could otherwise help to ease the schools' difficulties with research equipment.

We recommend:

1. That states assess the adequacy of their direct support for scientific equipment in their public and private universities and colleges relative to support from other sources and the stature of their schools in the sciences and engineering. The states cannot displace the federal government as the major funder of academic research equipment, but judicious increases on a highly selective basis could be extremely beneficial to the scientific stature of states while simultaneously increasing the effectiveness of funds available from federal and industrial sources.
2. That states grant their public universities and colleges greater flexibility in handling funds. Desirable provisions would permit schools to transfer funds among budget categories, for example, and to carry funds forward from one fiscal period to the next. Greater flexibility would not only improve the universities' ability to deal with the problems of research equipment, it would also be likely to provide direct savings in purchasing and would free academic administrators to discharge their responsibilities more efficiently.
3. That states examine the use of their taxing powers to foster academic research and modernization of research equipment. Tax benefits available under the federal Internal Revenue Code are also available in 34 states whose tax codes automatically follow the federal code. Relatively few states, however, have adopted tax benefits designed to fit their particular circumstances.
4. That states revise their controls on procurement to recognize the unusual nature of scientific equipment and its importance to the research capability of universities. Scientific equipment often is highly specialized. Instruments that have the same general specifications but are made by different vendors, for example, may have significantly different capabilities. The differences, furthermore, may be discernible only by experts in the use of the equipment. Desirable revisions in state controls would exempt research equipment from purchasing requirements designed for generic equipment and supplies, such as batteries and cleaning materials; would vest purchasing authority for research equipment in individual colleges and universities; and would not apply rules beyond those already mandated by the federal government.
5. That states consider revising their controls on debt financing of scientific equipment at public colleges and universities to permit debt financing of equipment not part of construction projects, recognize the relatively short useful life of scientific instruments, and relieve the one- and two-year limits on the duration of leases.

THE UNIVERSITIES

The universities' ability to acquire and manage research equipment efficiently is affected by their individual circumstances, their traditionally decentralized authority, the individual project-award system that funds much of the equipment, and state and federal regulations. Within this context, however, we have identified a number of management practices that warrant more widespread use.

Our findings indicate that universities would benefit from stronger efforts to improve their internal communications. Moreover, our recommendations on the whole imply a need for a more centralized approach than is now the general practice in universities' management of research equipment. We note that other developments, including the universities' growing interest in debt financing and strategic planning, also point toward more centralized management.

We recommend:

1. That universities more systematically plan their allocation of resources to favor research and equipment in areas that offer the best opportunities to achieve distinction. Such strategic planning should involve participation by both administrators and faculty. The process may well call for hard decisions, but we believe that they must be made to optimize the use of available funds.
2. That universities budget realistically for the costs of operating and maintaining research equipment. These costs impose serious and pervasive problems, and failure to plan adequately for full costs when buying equipment is widespread as well. Full

costs include not only operation and maintenance, but space renovation, service contracts, technical support, and the like. Maintenance is particularly troublesome. Hourly user charges are commonly assessed to cover the salaries of support personnel and the costs of maintenance, but are difficult to set optimally and are rarely adequate.

3. That investigators and administrators at universities seek agency approval to spread the cost of expensive equipment charged directly to research-project awards over several award-years. As noted in Recommendation 3 under the Federal Government, individual research grants and contracts cannot normally accommodate costly equipment, and this problem would be eased by spreading costs over several years.

4. That universities act to minimize delays and other problems resulting from procurement procedures associated with the acquisition of research equipment. To be most effective, the procurement process should be adapted to the specialized nature of research equipment, as opposed to more generic products. Similarly, specialized purchasing entities or individuals would facilitate timely acquisition of equipment at optimum cost. Also beneficial would be formal programs designed to inform purchasing personnel and investigators of the needs and problems of each.

5. That universities establish inventory systems that facilitate sharing. One such system is the basis of the research equipment assistance program (REAP) at Iowa State University. The REAP inventory includes only research equipment. REAP may not be cost effective for all universities, but most should find elements of it useful.

6. That universities use depreciation rather than a use allowance to generate funds for replacing equipment, providing that they can negotiate realistic depreciation schedules and dedicate the funds recovered to equipment. Universities can use either method, but rates of depreciation are potentially higher—and so recover costs more rapidly—than the use allowance (6⅔ percent per year) because they can be based on the useful life of the equipment. Both methods, however, add to indirect costs, and neither can be used for equipment purchased with federal funds.

7. That universities seek better ways to facilitate the transfer of research equipment from investigators or laboratories that no longer need it to those that could use it. Faculty at most schools have no incentive to transfer equipment, excepting the need for space, and every incentive to keep it in case it might be needed again. Some systematic mechanism for keeping faculty well informed of needs and availability of equipment would be useful.

DEBT FINANCING OF RESEARCH EQUIPMENT

Universities traditionally have used tax-exempt debt financing to pay for major facilities and lately have been using the method to some extent to buy research equipment. A number of financing methods can be adapted to the special characteristics of such equipment, but whatever the method, such financing competes with other university needs for debt. Debt financing imposes risk on the university as a whole, and so implies a shift from decentralized toward centralized authority.

We recommend:

1. That universities explore greater use of debt financing as a means of acquiring research equipment, but with careful regard or the long-term consequences. Universities vary widely in their use of debt financing, but a universal concern is the need for a reliable stream of income to make the debt payments. It should also be recognized that the necessary commitment of institutional resources, regardless of the purpose of the debt financing, erodes the university's control of its future, in part by reducing the flexibility to pursue promising new opportunities as they arise. Debt financing also increases the overall cost of research equipment to both universities and sponsors of research.

2. That universities that have not done so develop expertise on leasing and debt financing of equipment. This expertise should include the ability to determine and communicate the true costs of debt financing and should be readily accessible to research administrators and principal investigators. The increasing complexity of tax-exempt debt financing, the many participants, the necessary legal opinions, and the various political and/or corporate entities associated with debt financing make it essential that universities fully understand the marketplace.

PRIVATE SUPPORT

The effects of the Economic Recovery Tax Act (ERTA) of 1981 on corporate spending on R&D and corporate contributions of research equipment to universities are not clear, for several reasons: the act has been in effect only since August 1981, its effects are entangled with other economic variables in a complex manner, and the uncertain future of the R&D tax credit, which is scheduled to expire at the end of 1985, may have skewed corporate response to it (the equipment donation provision is permanent). Nevertheless, the consensus appears to be that ERTA, suitably modified, should indeed spur technology, in part by fostering support for academic research and scientific equipment. We agree with this view.

We recommend:

1. That industry take greater advantage of the tax benefits provided by the Economic Recovery Tax Act (ERTA) of 1981 for companies that donate research equipment to universities and fund academic research. Universities' experiences with industry indicate that company officials may not be fully aware of the benefits available, although company tax specialists generally are well informed.

2. That universities seek donations of research equipment more aggressively by developing strategies that rely in part on the tax benefits available to donors. Sound strategies would stress both federal and state tax benefits as well as other important benefits to both donor and recipient.

3. That Congress modify ERTA so that equipment qualified for the charitable donation deduction include computer software, equipment maintenance contracts and spare parts, equipment in which the cost of parts not made by the donor exceeds 50 percent of the donor's costs in the equipment, and used equipment that is less than three years old. Computers are properly viewed as computing systems, which are incomplete without software. Maintenance of scientific equipment is costly to the point where universities have declined donations of equipment because they could not afford to maintain it. Makers of sophisticated equipment rely primarily on their technological knowledge, not their ability to make parts. Thus the limit on parts from outside suppliers is unrealistic, provided that the manufacturer is in fact in the business of developing and making scientific equipment.

The provisions on the R&D tax credit are made permanent, with revision to create an additional incentive for companies to support basic research in universities. Equipment acquired under research contracts qualifies for the credit, but ERTA currently provides the same incentive for companies to contract for research in academe as for research by other qualified organizations.

The social and behavioral sciences are made qualified fields of academic research in terms of the equipment donation deduction and the R&D tax credit. The social and behavioral sciences contribute to the application and utilization of science and technology, and they rely increasingly on research instrumentation.

Qualified recipients of equipment donations and R&D funding, in terms of ERTA tax credits, include research foundations that are affiliated with universities but remain separate entities. Some state universities have established such foundations to receive and dispose of donated equipment because they cannot dispose of it themselves without legislative consent.

These actions, we are convinced, would yield material benefits in the acquisition and management of research equipment by universities. The rationale for them here is necessarily brief. Much fuller background will be found in the five chapters of the full report, where these recommendations also appear.

SITE VISITS—UNIVERSITIES

Public: Colorado State University; Georgia Institute of Technology; Iowa State University; North Carolina State University; Texas A&M University; University of Illinois, Urbana; University of Minnesota; University of New Mexico; University of North Carolina, Chapel Hill; University of Texas, Austin; and University of Virginia.

Private: Carnegie-Mellon University; Columbia University; Duke University; Harvard University Massachusetts Institute of Technology; Princeton University; Rice University; Stanford University; University of Chicago; University of Delaware; University of Pennsylvania; and Washington University, St. Louis.

Corporate labs: Beckman Instruments, Inc.; Dupont; Hewlett-Packard; Honeywell; Microelectronics Center of North Carolina; and Syntex Research.

Government labs: Los Alamos National Laboratory; Stanford Synchrotron, Sandia National Laboratories, Radiation Laboratory.

State agencies: North Carolina Board of Science and Technology.

[Appendix III]

Tax-Exempt Bonds

RECOMMENDATION

Tax-exempt financing for college and university facilities, both public and private, should be retained as under current law.

CURRENT LAW

Under the Internal Revenue Code the income from bonds issued by state and local governments to finance public projects or services is exempt from federal income tax. Where public purposes will be served by certain private activities, state and local governments may provide tax-exempt financing for those activities by authorizing private activity bonds.

Because both public and private institutions of higher education serve identical public purposes, many states have established state educational facilities authorities which do not distinguish in any substantial way between public and private institutions in allowing tax-exempt issuances. Both public and private institutions have used tax-exempt facilities bonds for such purposes as construction and renovation of academic buildings, libraries, and dormitories; improving access to existing facilities for the handicapped; developing energy management and conservation systems; and building clinical teaching facilities and academic health centers.

Responding to concern over the volume of tax-exempt bonds used to finance private activities, Congress imposed volume limitations on industrial development bonds and on student loan bonds as part of the Tax Reform Act of 1984. Congress decided, however, that bonds issued to provide financing for Section 501(c)(3) organizations for facilities should not be subject to the statewide volume limitations. The rationale for this action was that private non-profit organizations, because of their social utility, should continue to benefit from tax-exempt financing. Congress considered this exception to be consistent with the general treatment of such organizations insofar as they are exempt from federal taxes.

THE PRESIDENT'S PROPOSAL

The President's tax reform proposal contends that access to tax-exempt financing exists as a matter of comity between the federal government and state and local governments. The proposal would tax interest on obligations issued by a state or local government "if more than one percent of the proceeds [use of the facility is considered use of the proceeds] were used directly or indirectly by any person other than a State or local government" completely eliminating the availability of tax-exempt financing to "nongovernmental persons," including private colleges and universities. In addition, significant changes in the areas of arbitrage and advance refunding would limit the issuance of tax-exempt bonds for the benefit of public colleges and universities.

WHY ACCESS TO TAX-EXEMPT FINANCING FOR COLLEGE AND UNIVERSITY FACILITIES SHOULD BE RETAINED

The proposal creates an unfair and arbitrary distinction between institutions serving identical public purposes. The diversity or the American system of higher education and its absence of any central control is one of its greatest sources of strength. Creation of distinctions between public and private institutions would be contrary to a long tradition of equal treatment in higher education.

The financial repercussions for colleges and universities would be severe. Studies have estimated the total facilities need at the nation's colleges and universities at $40 billion. With the exception of $50 million appropriated in 1984, no federal funds have been available for facilities construction since the early 1970s. The tax-exempt bond market provides the only practical access to the capital needed. Private funding is rarely available for the vast sums of money that it takes, for example, to finance a major expansion of a campus utilities system. Moreover, many facilities needs such as access for the handicapped, hazardous waste disposal facilities, and compliance with safety and health regulations are imposed by federal, state, and local ordinance. Colleges and universities are unable rather than unwilling to assume the additional cost of financing loans and facilities in the taxable market.

Repeal of the tax exemption for so-called private-purpose bonds would raise an insignificant amount of revenue in the battle to reduce the deficit. Coopers & Lybrand found in a study released on July 17, 1985, that the President's proposal to eliminate the exemption would result in a cumulative revenue gain of only approximately $2 billion from 1986 to 1990, not $14 billion as was estimated by Treasury. Moreover, in 1984 tax-exempt higher education facilities financings accounted for less than 3 percent of the long-term tax-exempt bond market. Student loan bonds represented only 1 percent of the long-term tax-exempt education bond market in 1984. Thus, the volume of Section 501(c)(3) bonds for educational facilities is relatively insubstantial and their removal from the capital markets would be unlikely to affect interest rates significantly.

Mr. FORD. Thank you very much.

We are indebted to you in your new position now at Michigan State. In your prior position, you have been an active advocate for higher education programs for a long time and I am especially pleased to have you back here now representing a good domestic institution, instead of one of those foreign institutions off in the East some place.

Mr. DIBIAGGIO. That institution was a member of the Big East Conference. The monsignor and I used to be rivals, the University of Connecticut.

Mr. FORD. We are happy to have you back in Michigan. I want to mention one strong remembrance I have of facilities inadequacy at Michigan State, in 1976, very late in the campaign, the candidate for Vice President, Mr. Mondale, appeared at Michigan State, and they arranged for him to speak in the Union Hall.

When he came downstairs at the end of his speech, he found a group of people sitting outside in wheelchairs, and they were sitting outside in the wheelchairs because there was no way for them to get up to the main room where the speech was being held.

His reaction to that was to say, "Don't ever ask me back to Michigan State, to speak any place where people in wheelchairs can't get in to hear me."

When he then was Vice President, they had to find a different location, because 2 years later the same conditions still obtained, and I would ask you, can you now get up to the main function room in the Union in a wheelchair or not?

Mr. DIBIAGGIO. Yes, you can. We are sort of a model campus for access, but again, Mr. Ford, that has come at great cost because we have had to invest moneys that we might have used for other purposes, and appropriately so, because we place a high priority on handicap access.

We just had the cerebral palsy Olympic Games on our campus, and that group in particular critically required access to facilities, and we received many letters citing the fact that our university has been extraordinary in its efforts to provide access.

Again, it meant we didn't meet some of our other current and very critical needs as well.

Mr. FORD. Thank you.

Mr. Coleman.

Mr. COLEMAN. I have no questions. Thank you for coming.

Mr. FORD. Mr. Bruce.

Mr. BRUCE. No questions.

Mrs. ROUKEMA. I find your recommendation on Sallie Mae intriguing, and I will look into it. It is a complicated issue, but it certainly bears further serious investigation.

Mr. DIBIAGGIO. Our States simply can't meet the need, and I would point out to you, and this is a critical matter, particularly in the area of research, graduate studies, but in general in education, we are always perceived as being State resources, but our institutions are no longer State resources.

We are national resources. The students that we produce serve the entire Nation. They don't necessarily settle in the States where they receive their education.

The research we engage in, our consultation extends across the Nation, and the entire globe now, so it is appropriate for the Federal Government to be investing in higher education. I know Bill feels that way, and I appreciate that, but we must be thought of as national resources, and in your deliberations, I know that you will take that into account.

Mrs. **ROUKEMA**. Thank you.

Mr. **FORD**. Mr. Atkins.

Mr. **ATKINS**. Just one question.

If, in the process of enacting a tax reform bill, we eliminate the access of colleges and universities to tax-exempt financing for their facilities, how would that impact on your recommendation to use Sallie Mae as a secondary market?

Mr. **DIBIAGGIO**. It would cause a problem and particularly for the private institutions, as I said in my testimony. They are the ones who have the difficulty, and I think—it maybe sounds strange to you for a public university president to be talking about the needs of private higher education, but I think that pluralism is critical to this Nation.

It is what built us, was opportunity in both public and private sectors, and choice, and indeed, it is the private sector that would be most damaged. Mr. Fox is going to testify, and understands the implications that it would have on Sallie Mae.

Mr. **ATKINS**. Just one other question, for a State like Michigan, public university in Michigan, do you have any kind of sense as to how much that program could conceivably lower your borrowing costs for your facilities expansion there, instrumentation costs?

Mr. **DIBIAGGIO**. No, but we will be pleased to provide you with a response to that question.

Mr. **ATKINS**. All right.

Mr. **FORD**. Thank you very much.

Dr. Joab Lesesne.

STATEMENT OF JOAB M. LESESNE, JR., PRESIDENT, WOFFORD COLLEGE

Mr. **LESESNE**. I appreciate the opportunity to represent the National Association of Independent Colleges and Universities before this body.

I submitted a rather lengthy text to you.

Mr. **FORD**. Excuse me, without objection, the prepared statements of each of the witnesses will appear in full in the record immediately preceding the point at which they begin their comments.

Mr. **LESESNE**. Thank you, sir.

With that done, I won't go back through all of that, but in following my colleague from Michigan, I would like to endorse his recommendations, and much of the history which he recited to you is in my statement, and the best thing I could do is maybe just draw out on how this particular history has impacted in independent sector, although we are both in complete agreement on the general principles that we are talking about.

During the period of the rapid expansion, the earlier acts in support of facilities were useful to both the independent and the public sector, and considerable funds were provided for that purpose.

Much of that expenditure of funds was carried out in a period of 20 years ago, or farther back, and two figures struck me:

Twenty-five percent of the physical plant in higher education today was actually built, that is now in existence, was actually built prior to World War II, and another 25 percent of it was built between World War II and 1960, which means that we have a very aging plant to deal with.

The estimate of $30 to $50 billion to bring that up to speed is pretty generally agreed upon.

Looking from the independent sector side, one thing is important to be understood as we begin to frame legislation. There have been very difficult times for all of higher education in the last 10 years, and what is happening in the independent sector is, any kind of funds that were available which were discretionary in nature at all, and some that were not really, were placed into the financial aid programs in order to maintain low access for low-income institutions, at least institutions, and maintain their competitiveness as far as tuition is concerned, with the result that there has been deferred maintenance, and probably more than we would like to admit, plant that has begun to run down and get into the crisis stage.

Individual college presidents would not like to make a public statement on the condition of their own institution in this regard, but as you look across all of our sector, we are in a situation very much like our cities are, and that is, we have got infrastructure that is going to have to be rebuilt if it is going to do its job very well.

To give you an idea about what has happened in the independent sector, $900 million was added to the financial aid budgets of those colleges in 1981, and that doubled again within 2 years after that.

So we wound up with $2 billion by 1983, which is the last year that we have full figures on, which means that, in fact, even in this decade, the major part of the funding of these institutions is going into the business of people rather than into the plant itself.

Now, as you well know, the Federal assistance is essentially ceased, although I hope what I saw in the 1985 appropriations bill maybe represents a new initiative on the part of Congress to begin to do that, and I know this is what you are having to deal with.

The ACE proposal rightly focuses on this renovation question as opposed to new construction question. There may be cases where new construction will be more cost effective, but generally speaking, the renovation issue is the critical issue, and since we are not in a rapid growth period, it makes public policy sense to place your funds there.

We would be interested, although the NICU represents both undergraduate and graduate institutions, to make it understood clearly that undergraduate schools are in need of this renovation as much as research facilities are.

That does not mean that we don't think research facilities are very much in need of renovation, because they are, but we believe 75 percent of these funds should go into the undergraduate programs, and 25 percent into the graduate programs, and that is pretty generally agreed upon by people in the higher education community.

It might be useful to consider pretty carefully where these funds are used, and in earlier legislation there was some limit to where funds could be used.

Early, it was into dormitories, and later expanded into dining hall and campus union facilities. It is important now to recognize that instructional facilities need to be addressed.

It is important to recognize that instructional facilities include equipment, and in the day when the computer has become the centerpiece of much of our higher education system, and a high-cost item, we need to address that question as well when we are dealing with facilities, because in many cases, that becomes a central part of the capital cost of a program.

Let me also note that in our earlier programs during the period of the growth of community colleges, there was recognized a need to set aside a certain specific percentage of the renovation or building funds for that sector.

They are now in essentially the same situation that the rest of the higher education sector is in, and it seems to me we ought not to set aside a percentage there, but to make sure that the program in the undergraduate section, the program eligibility criteria is reasonable, so that all institutions can have access to it, and that it be based on applications of merit and needs for those funds rather than trying to divide up among sectors.

I would like to not only endorse the suggestion that we look at the Sallie Mae potential, but also to make one other possible alternative suggestion, and that is, the college housing loan fund, which is a revolving fund that was funded nearly at $4 billion, somewhere between $3.5 and $4 billion, those funds revolve now, and they are available.

It may be worth investigating, I am not sure whether we will endorse, but it may be worth looking at the possibility of extending those programs to nonhousing facilities, and see whether or not some of those funds might be used on a loan basis with some kind of guarantee established, as was suggested for the use of academic facilities as well as for housing.

Mr. Chairman, I think other than to once again say that I think ACE and NAICU, and other associations are together on this whole issue, and I would like to commend you for taking this whole question up again and raising it to the front of our agenda, because while financial aid remains the most critical area of need for the present, as we look at long-term public policy, this is inevitably going to come home to haunt us 30 years from now if we don't do something pretty rapidly with our facilities.

[The prepared statement of Joab M. Lesesne, Jr. follows:]

Prepared Statement of Joab M. Lesesne, Jr., President, Wofford College, on behalf of the National Association of Independent Colleges and Universities; Association of Catholic Colleges and Universities; Association of Jesuit Colleges and Universities; Association of Presbyterian Colleges and Universities; Council of Independent Colleges and the National Association of Schools and Colleges of the United Methodist Church

Mr. Chairman, members of the Subcommittee, my name is Joe Lesesne. I am President of Wofford College in Spartanburg, South Carolina. Established in 1854, Wofford College is a four-year residential liberal arts college affiliated with the United Methodist Church. The college enrolls just over 1,000 undergraduates.

I also serve as Chairman of the Board of Directors of the National Association of Independent Colleges and Universities (NAICU). NAICU is an organization of 850 independent, non-profit colleges and universities, and state, regional, or other special-purpose organizations, based here in Washington, D.C. to provide a unified national voice for independent higher education. Last year, independent institutions enrolled 2.6 million students or approximately 21 percent of all students enrolled in higher educational institutions. Less than one-fifth of revenues for independent colleges and universities comes from governmental—federal, state, or local—funds, while income from tuition, fees, and services (bookstores, campus housing, etc.) extended to students contributes more than 63 cents of every dollar of operating revenue at our institutions.

I appreciate the opportunity to testify on behalf of NAICU this afternoon on Title VII of the Higher Education Act: Construction, Reconstruction and Renovation of Academic Facilities. Our members feel that a greatly enhanced effort in federal assistance for the renovation and reconstruction of academic facilities and the upgrading of instructional equipment is of crucial importance to the future of higher education and the nation. Working with representatives of the other associations in the higher education community, we developed proposals for reauthorization of a newly focused Title VII which, if sufficiently funded, we believe can assist higher education in addressing some severe and mounting needs.

As you know, funding for the current Title VII programs has been woefully inadequate. The $28 million appropriated for fiscal 1985 will fund the first grants under this title in over 10 years. In the absence of greatly enhanced appropriations for a newly focused Title VII program, I urge you to investigate some additional options, including the creation of a loan guarantee program and the use of the revolving fund of the current College Housing Loan program to serve needs in the area of academic facilities.

The federal initiative to assist in the construction and renovation of academic facilities began with the Higher Education Facilities Act (HEFA) of 1963 (P.L. 88-204), preceding the passage of the Higher Education Act (HEA) by two years. The current Title VII still bears considerable resemblance to the original Act, with separate parts and provisions for grants for undergraduate facilities (then Title I of HEFA, now Title VII, Part A of HEA), grants for graduate facilities (then Title II of HEFA, now Title VII, Part B of HEA), and loans for both undergraduate and graduate facilities (then Title III of HEFA, now Title VII, Part C of HEA). Then, as now, grant applications for undergraduate facilities were evaluated at the state level while applications for graduate facilities support were evaluated at the federal level. The original legislation limited the federal share of reconstruction and renovation efforts to 40 percent for community colleges and technical institutes and 33⅓ percent for all other institutions. Grant purposes were limited to the enhancement of libraries and academic facilities intended for instruction in the natural and physical sciences, foreign languages, mathematics and engineering. Subsequent reauthorizations have seen the limit on the federal share of project costs rise to 50 percent for all institutions and the purposes of grants expand to include the construction and reconstruction of research facilities, energy conservation, compliance with environmental protection and health and safety laws, the removal and containment of asbestos and the removal of architectural barriers to the handicapped.

The original Higher Education Facilities Act also authorized a program to provide direct loans to colleges and universities for the purposes of constructing and renovating academic facilities. Under the original statute, direct loans were made by the government on a discretionary basis and were given at an interest rate of one quarter of a percentage point above the average annual interest rate on all federal loans. Facilities projects receiving federal loans had to receive 25 percent of their support from non-federal sources. Like the facility grant program, the loan program was incorporated into the Higher Education Act of 1965. Subsequent reauthorizations, especially those of 1976 and 1980, gave rise to a direct loan program, as well as an indirect loan program and a program for loan insurance. A revolving loan fund financed through federal appropriations and the sale of "participation certificates" by the Government National Mortgage Association (GNMA or "Ginnie Mae") provides direct 4 percent loans to colleges and universities to cover up to 80 percent of project costs. Indirect loans are also authorized through which the federal government pays the difference between the rate obtained by the institution and the rate that would be required for a new direct loan (4 percent).

In 1972, the Congress authorized a program to provide insurance on facilities loans undertaken by independent non-profit colleges and universities. In 1980, the loan insurance program was opened up to all non-profit institutions. But, while both the direct loan and indirect loan programs were active, especially in the 1960's and early 1970's, the loan insurance program has never been funded.

Mr. Chairman, in the 1960's and early 1970's the nation and higher education faced a crisis. Enrollments were rising steadily, in part through the maturation of the baby-boom generation and in part as a result of the nation's new commitment to equal educational opportunity. Aided by the Higher Education Act of 1965, this new commitment brought millions of first generation college students to our campuses. Not since the post-war years of the G.I. Bill had the nation experienced such a boost in participation in higher education. And yet, in terms of facilities and equipment, higher education was ill prepared to receive the sudden influx of students. In partnership with the federal and state governments, higher education launched into a wave of facilities construction and program development to serve these students. The benefits that resulted from this expansion of higher educational participation and facilities can be seen in many quantifiable ways: in our better trained work force, our steadily increasing Gross National Product, our breakthroughs in science and medical research, product innovation, upward social mobility and economic opportunity, as well as in the non-quantifiable benefits of a more broadly educated citizenry.

The federal government made a substantial commitment to help higher education face the challenge of serving newly enlarged student bodies in a new era. Between the years of 1965 and 1973, the Congress appropriated $1.8 billion in direct grants for undergraduate facilities. This effort represented a commitment equivalent to $5.8 billion in constant 1985 dollars. For graduate facilities grants, the Congress has appropriated $228 million to date, a commitment of over $616 million in constant 1985 dollars. The Congress has also provided $678 million in direct loan capital, a commitment of over $2 billion in constant 1985 dollars, and $295 million in indirect loan assistance representing a commitment of $481 million in constant 1985 dollars. In total, the Congress has provided over $3 billion in academic facilities assistance under the Higher Education Facilities Act and the Higher Education Act since the 1960's, a commitment equivalent to $9 billion in constant 1985 dollars.

Mr. Chairman, higher education and the nation face many new challenges. The traditional student age population is beginning to decrease while the number of all kinds of non-traditional students is rising rapidly. These students include displaced workers in need of retraining, ethnic minority students for whom English is not their primary language, mothers who must gain a degree and/or a skill to raise a family independently or to supplement another income, and students with inadequate secondary school experiences who are in need of continued education. All kinds of students, both traditional and non-traditional, are struggling, and will continue to struggle to keep informed and employed in our increasingly technological society. Reports from the business community speak to the need for a better trained work force in order to maintain our place in an increasingly competitive international market. Changes in our domestic economy have greatly increased the demands for job retraining as well as workers with both broad and narrow areas of expertise. Higher education recognizes these challenges and is determined to meet them.

Yet, once again a crisis looms that threatens higher education's ability to fulfill this mission. Twenty-five percent of higher education's physical plant was built before World War II and a similar amount was built before 1960. A significant amount of physical plant construction transpired during the era of expansion mentioned earlier. Since that time, federal assistance for facilities construction and renovation has fallen off drastically. Direct grants for undergraduate facilities ceased in 1973. Grants for graduate facilities ceased in 1969. Twenty-eight million dollars has now been appropriated for FY 1985 for Title VII to be distributed to both undergraduate and graduate facilities projects. Eighty-eight percent of federal funds for direct loans was appropriated before 1970. Only four new loans have been made since that time, each of them initiated by the Congress to specific institutions. Except for these four loans, no indirect loans have been initiated since 1974. Appropriations since 1975 have only serviced previous loans and the amortization of GNMA participation certificates.

The federal initiative in assisting higher education since the early 1970's has been largely in the area of student financial aid. While student aid funding has risen since that time, it has not kept pace either with inflation or tuition increases. In addition, independent colleges and universities do not receive a per-student subsidy from state governments. As a result we have had to increase our commitment of institutional student aid dollars in order to maintain the economic and ethnic mix among our student bodies. Starting in the late 1970's, commitments of institutional student aid rose dramatically to the level of $900 million in 1981. And, by 1983, institutional student aid commitments in the independent sector had more than doubled to almost $2 billion.

In addition to student aid, our colleges and universities have had to increase commitments to scarce institutional funds to greatly increased energy costs, faculty salaries and student services; all while trying to keep tuition at competitive levels. As a result, our facilities and instructional equipment needs have been sorely neglected. Necessary maintenance of academic facilities has been deferred again and again, while instructional equipment has become obsolete. Estimates of the facilities and equipment renewal and replacement needs for all of higher education have ranged from $30 billion to $50 billion. Dr. Harvey Kaiser, in his book "Crumbling Academe," estimates that in order for an institution to address only its most pressing needs, the average university would require $9.5 million in new capital and the average four-year college, $1.1 million. The problem of deferred maintenance and obsolete equipment not only threatens our central mission as educators in the modern age, it negatively affects the morale of our students and faculties and threatens the long-time fiscal health of many of our institutions.

I do not mean to sound overly alarmist about the extent of this problem. With few exceptions, colleges and universities have been somewhat hesitant to call attention to deteriorating facilities and outdated equipment at their own campuses. Such public attention can be damaging to a campus' reputation as well as to the morale of students, faculty and alumni. And it is for this reason that presidents within NAICU believe it is appropriate to sound the alarm. As chairman of NAICU, I am here to underscore the need to address more directly the crucially important federal role to assist higher education in renewing this most vital part of the nation's essential economic infrastructure.

I would like to call particular attention to the need for federal assistance in enhancing undergraduate facilities and equipment. In considering the future direction of Title VII, you should keep in mind that the great majority of students who enter higher education will not continue on to graduate study. The media and the public, in celebrating the many benefits higher education yields to the nation, often look only to the breakthroughs performed at our great graduate research facilities in the areas of science, social sciences, medicine, engineering and economics. We sometimes lose sight of the fact that the nation's major academic effort at educating and training our citizens is in our baccalaureate and associate degree programs. We also often lose sight of the very valuable and necessary research being performed at our four-year institutions as well as the fact that our nation's scientists, social scientists, economists, doctors, lawyers, and engineers were all, at one time, inspired undergraduates, inspired quite often in the environment of personalized instruction that remains the hallmark of the independent sector. A recent study performed by the Great Lakes College Association (GLCA) identified the fifty most productive campuses at yielding baccalaureate graduates that go on to obtain Ph.D.s. The study showed that about half of the most productive campuses are independent undergraduate institutions.

Between the years of 1966 and 1979 the Congress saw a federal role in providing direct assistance to enhance undergraduate education. During those years the Congress appropriated $140 million, or about $355 million in constant 1985 dollars, for what was then Title VI of the Higher Education Act: Financial Assistance For the Improvement of Undergraduate Instruction. Under this program, institutions competed for grants for the acquisition of academic equipment for science, math, foreign languages, history, geography, government, English and the humanities. Funds were also available for minor remodeling of facilities as well as for workshops for specialists in educational media and libraries. Grant applications were evaluated at the state level in much the same way as the current Title VII program for undergraduate facilities. This small but important program of equipment assistance for undergraduate education was not reauthorized in the Education Amendments of 1980.

PROPOSALS FOR REAUTHORIZATION

Mr. Chairman, NAICU participated in a task force under the aegis of the American Council on Education (ACE) with other higher education associations, to develop some general proposals for reauthorization of Title VII. I am pleased to report that the associations are in consensus on a number of areas regarding changes in the program.

The community is in agreement that federal facilities assistance under Title VII should emphasize modernization of existing facilities rather than new construction, except where new construction is more cost-effective than renovation. We at NAICU see no need to expand the nation's higher educational physical plant, given current projections of future enrollments. What is needed is assistance to help higher education rebuild and retool to meet the needs of these future enrollments.

The community also agrees that the current structure of a three-part Title should be maintained, with Part A renamed to address "Grants for the Modernization and Improvement of Undergraduate Academic Facilities," Part B to address the same for "Graduate Academic Facilities," and Part C to address "Loans for the Modernization and Improvement of Academic Facilities." Recognizing federal budgetary limitations, the community recommends an authorization for grants of $200 million for FY 1985 and "such sums as may be necessary" thereafter, with the understanding that 75 percent of appropriations for grants should go toward Part A, undergraduate facilities, and 25 percent to Part B, graduate facilities.

For loan assistance under Part C of Title VII, the community recommends simplifying Part C by eliminating the annual interest grants and loan insurance programs. These programs are seen as less valuable in addressing facilities needs than the direct loan program. In order to bring the direct loan program more in line with current fiscal realities, the community recommends changing the maximum loan term from "not less than .25 percent above the Federal Treasury bill rate or 4 percent" to the rate of Treasury bills minus 2 percentage points.

Mr. Chairman, NAICU has developed a number of additional proposals that we ask you to consider. Under the Undergraduate Facilities Part, we wish to propose a small but important change in the area of grant purposes. Section 701 (a)(4), we believe, should be changed to allow grants for the purposes of renovating academic facilities, in addition to research facilities and libraries. Mr. Chairman, this change is central to our proposals to enhance facilities for undergraduate education.

The current Undergraduate Facilities program distributes grants through the states. States desiring to participate in the grant program are required to submit a state plan established by a state board that determines the relative priority of eligible projects submitted by institutions of higher education within the state. Section 1203 (b)(4)(E) of the Higher Education Act ensures that all sectors of higher education, including independent colleges, are represented on the state boards (formerly referred to as "1202 Commissions") that develop these state plans. We consider it essential that this section be reauthorized should the Congress continue to administer undergraduate facilities grants through the states. Reports received from the executives of our state-level independent college associations reveal that while some states regularly consider the needs of their independent colleges, others, in the absence of independent college input, are inclined only to consider the needs of public sector institutions.

We feel that academic instructional equipment is an essential part of the higher education infrastructure and is in need of enhancement for much the same reasons as are academic facilities. Advances in high technology have made the computer a central actor in many areas of academic inquiry just as it has become central to the workplace in so many fields. Computers represent a substantial but absolutely necessary expense for our institutions if they are to continue to stay up-to-date in academic instruction and job training. These needs are matched by the needs to modernize all instructional equipment in the sciences, social sciences, arts and humanities.

Unfortunately, in this area, as in the area of academic facilities, little data is available that adequately estimate the outstanding need. However, the Congress' Office of Technological Assessment (OTA) is currently involved in a study on "the threat posed to undergraduate and graduate education and research programs by obsolete instructional and research equipment and outmoded facilities" at the behest of Senators Hatch and Dodd. This study will not only seek to estimate the equipment and facility needs of higher education but will also assess efforts at the institutional level and at the Department of Education to address these needs. It will also investigate the consequences we, as a nation, can expect if these needs are not addressed. We encourage you to review this study upon its completion and, in the spirit of pre-1980 Title VI support, consider expanding the purposes for Title VII A grants to include the purchase of academic instructional equipment.

In our April 30 submission to the Subcommittee, NAICU proposed language to strike the 24 percent set-aside for community colleges and public technical institutes under the grant program for undergraduate facilities. The set-aside for community colleges was first enacted in the Higher Education Facilities Act of 1963 at the level of 22 percent. It has endured through the period of rapid expansion in this sector. The set-aside will not be entertained in the upcoming grant cycle, as the $28 million was appropriated under the graduate facilities part with language specifying that funds should go to both undergraduate and graduate facility projects. As we seek to redirect the Title VII program to emphasize renovation rather than new construction, it seems appropriate to evaluate all applications on their merits and need for funds. Please understand that it is not out of any disrespect for the mission and efforts of our nation's community colleges that we make this proposal.

Clearly, Mr. Chairman, given the extraordinary need we recognize for facilities and equipment assistance, our priority is on enhancing appropriations in this area. We would propose two additional ideas that may serve to bring additional dollars to bear on these needs without a substantial cost to the government. In the loan area, we ask the Subcommittee to investigate the viability of a federal loan guarantee as a method to leverage private sector funds to assist colleges and universities in our renovation effort. In past years private sector involvement in higher education facilities needs have centered around the use of tax-exempt bond financing. Bond financing, however, has not proved to be an economical mechanism for the needs of some of our smaller colleges or for smaller renovation rather than new construction projects. And we are deeply concerned by the proposal in the Administration's tax reform initiative to deny access to the tax-exempt bond market to independent colleges and universities.

In the area of private sector fundraising, while our alumni recognize the need to contribute to our colleges for their general upkeep, it has proven to be quite difficult to raise the large gifts that are necessary to finance substantial renovation needs. A new college-wide heating or sewage system simply does not have the same appeal to a large donor as a new science or library facility. We believe that a loan guarantee can provide the necessary incentive to bring in funds from the financial community to help alleviate some renovation needs.

In the absence of substantial appropriations in the direct loan program, we would also encourage the Subcommittee to investigate the option of expanding the purposes of the College Housing Loan program to allow institutions to borrow from its revolving fund for the purposes of renovating academic facilities. Enacted as Title IV of the Housing Act of 1950, the College Housing Loan program reached its peak in 1969 with an outstanding loan volume of $3.8 billion. Like the revolving fund in the direct loan program under Title VII of the Higher Education Act, the College Housing Loan fund has been financed by direct appropriations, the sale of GNMA participation certificates, and the payments of previously made loans. The program has been extremely successful for many of our colleges and universities. In 1955 the program was expanded to allow loans for construction of student centers, health centers and dining halls. We believe it may be time to expand the program again to bring it into conformity with current renovation rather than new construction needs. We understand that the College Housing Loan program is not under the jurisdiction of this Committee though the program has been administered by the Department of Education since the Department's inception in 1979. Should the Education and Labor Committee gain jurisdiction over the program, we would encourage you to investigate this option. If not, we would encourage you to discuss this proposal with your colleagues on the Banking, Finance, and Urban Affairs Committee.

To conclude, Mr.Chairman, let me emphasize that we do not look to the federal government to solve all the facilities and equipment needs of higher education. We at the campus level, like you here in Washington, have been faced for some time with the challenge to do more with less. As you know, we also recognize substantial needs in the area of student financial assistance and we fully support and expect student aid to remain the cornerstone of the Higher Education Act. It may, however, be shortsighted and, indeed, dangerous, in terms of the future needs of our citizens, if we address students' need without simultaneously addressing their learning tools and learning environment.

Mr. Chairman, and members of the Subcommittee, I thank you once again for the opportunity to present our views to you this afternoon. I would be happy to answer any questions you may have.

NAICU Recommendations for Reauthorization of the Higher Education Act

TITLE IV—STUDENT ASSISTANCE

Student Grant Programs.—Continue the existing federal policy goal that every eligible student shall receive aid under the Pell Grants, SEOG, and SSIG programs that, in combination with reasonable parental and student contributions, will be sufficient to meet 75 percent of a student's cost of attendance.

Pell Grants.—Restructure Pell Grants in order to resolve the long-standing conflict among sectors of higher education over percentage-of-cost limitation/maximum award/funding triggers for other programs by instituting a new Pell Grant formula. The formula would target the program on low-income students and insert price sensitivity into the basic structure of the Pell Grant program, basing eligibility on a two-part formula: (1) half of tuition, mandatory fee, and book expenses for all eligible low- and middle-income students, up to a maximum of $2,100, *plus* (2) a substantial allowance to cover living expenses for all low-income students, up to a maximum of $2,100. This mechanism would award substantial grant dollars to low-income students for their living expenses plus half of their tuition expenses in order to assure their access to all types of participation of middle-income students to just half the "price" charged to them.

The proposal assumes the same taxation rates on discretionary income for dependent and independent students in order to provide substantial grants to low-income students and a $200 minimum award to a student from a typical family of four with one in college and an adjusted family income of $30,000.

Supplemental Educational Opportunity Grants.—authorize the SEOG program with a funding authorization of no less than 15 percent of the appropriation for Pell Grants. Target SEOG funding on students with greatest need for funds (defined as those student whose expected family contribution is less than one-half of their total cost-of-education). Maintain institutional"hold harmless" level at amount institution used in academic year 1985-86 (FY 1985 appropriation). Allocate all new funding above the FY 1985 level only to those institutions whose institutional 'Fair Share' exceeds their "Conditional Guarantee". Reinstitute institutional matching requirement in program, with matching funds to come from non-federal sources. Drop use of institutionally-provided need-based student grants and awards from formula used to determine institutional need for SEOG.

State Student Incentive Grants.—Reauthorize the program and allow states to use up to 50 percent of new allocations, above FY 1985 level, to establish or sustain a 50/50 federal/state matching work-study program.

College Work-Study.—Reauthorize the program without changing the language that limits CWS to non-profit institutions, without changing the existing reallocation procedures, and without consolidating the program with Cooperative Education. Allocate new funding above the FY 1985 level as in SEOG (see above).

National Direct Student Loans.—Reauthorize the program and rename the program for its principal advocate, the late chairman of the House Education and Labor Committee, Representative Carl D. Perkins.

Guaranteed Student Loans.—Reauthorize the program increasing the annual loan limits for those undergraduates who have completed their first two years of study toward a bachelor's degree and for graduate students to $5,000 and $8,000, respectively. Aggregate limits are increased to $20,000 for undergraduates and an additional $25,000 for graduate students. Limit all loans to need remaining after all federal grant, work, and loan benefits, together with all expected parental/student contributions are taken into account. Provide for borrower-requested consolidation of student loans. Repeal the origination fee. Provide for a federally-guaranteed, but not federally-subsidized, 'loan of last resort.'

PLUS Loans.—Reauthorize the PLUS loan program making it more attractive to lenders, and therefore a more viable program for borrowers, by allowing consolidation or refinancing of loans, and by allowing secondary markets to adjust payment schedules with the borrower.

Master Calendar.—Establish a master calendar for the delivery of student aid in order that the student aid system may function smoothly.

Verification.—Require verification documentation to be submitted on all federal student aid applications.

TITLE III—INSTITUTIONAL AID

Reauthorize program with three separate parts: Grants to strengthening institutions, grants to Historically Black colleges and universities, and Endowment grants. Alter eligibility criteria to include a wider body of institutions. Expand permissible uses of grant dollars to include recruitment activities and training of administrative staff. Make Cooperative Arrangements a high priority funding area with more lenient restrictions on participation.

TITLE VII—CONSTRUCTION, RECONSTRUCTION, AND RENOVATION OF ACADEMIC FACILITIES

Reauthorize title with emphasis on renovation rather than new construction. Increase funding authorization to reflect the increasingly critical need for assistance in this area. Streamline title by deleting unfunded provisions for loan insurance and interest grants. Delete community college setaside provision so that all types of institutions compete equally on the merits of their applications.

Mr. Ford. Thank you.

Monsignor.

STATEMENT OF MSGR. JOHN J. PETILLO, CHANCELLOR, SETON HALL UNIVERSITY

Monsignor Petillo. I appreciate the opportunity to participate in these hearings on the reauthorization of the Higher Education Act, and to discuss with you the facilities needs of higher education. Your strong leadership, Mr. Chairman, and that of your colleagues, will be necessary if we are to address successfully the problem of capital renewal in our institutions of higher education.

Seton Hall University is a comprehensive liberal arts institution with 9,600 students. We are located in South Orange, NJ, which is approximately 5 miles from Newark, the State's largest urban center, and 20 miles from New York City.

Seton Hall is the largest Catholic university and the second largest private institution in New Jersey.

Where there may be no average or typical college or university, I would say that Seton Hall is representative of many moderate-sized private institutions and the problems they face today. Traditionally, Seton Hall has provided educational opportunities to the children of low- and middle-income families, often the first generation to go to college. More than 65 percent of our students receive some form of financial assistance and a similar percentage hold jobs to support their education. We have a modest endowment, and rely on tuition and fees to fund more than 90 percent of our $50 million annual budget.

Mr. Chairman, we are fighting the facilities war on all fronts. In the last 5 years, we have built a new seminary, initiated steps to double our dormitory capacity, spent $4 million catching up on long-deferred maintenance, and have begun construction of a recreation center.

We are facing a massive renovation program. Most of our facilities are 45 to 50 years old. We need to spend $9 million to renovate and equip our science building and eliminate serious safety hazards; we need to spend $1 million on our library building and $2.5 million for our main classroom building, which also houses our computer center; we need to spend $2 million for asbestos removal; $750,000 improving handicapped access; and, if new regulations are adopted by the State of New Jersey, $3 to $8 million to conform to new fire codes.

A conservative estimate of our needs just for renovation and rehabilitation is $20 million over the next 5 years, which could double over the next 10 years.

Seton Hall is an integral part of the village of South Orange, NJ. We are the largest employer and have a major economic impact on the financial stability of the community. It is incumbent upon Seton Hall to maintain its facilities for the betterment of the university as well as our neighbors in South Orange.

Over the past 2 years, we have raised $7 million for facilities construction and renovation. We have used the bonding authority of the State of New Jersey; we have applied, so far unsuccessfully, to the Federal College Housing Loan Program.

In short, we are doing everything within our imagination and power to address our problems and we are still a very long way from meeting our immediate needs, let alone our long-term goals.

Seton Hall's situation is not unique; 10 years ago, it was estimated that 20 percent of our Nation's higher education facilities were in need of replacement, translating into $40 to $50 billion in 1982 dollars.

Judging by our experience at Seton Hall, the situation is probably worse rather than better today. And, as if raising that kind of money were not sufficiently staggering, we are now faced with a series of tax proposals that threaten our already limited fundraising ability.

If the tax deduction for charitable giving is eliminated or sharply curtailed, or if private higher education institutions are denied access to the tax-exempt bond market, it could be a death blow to many institutions of modest means.

It is against this backdrop that the subcommittee and the Congress must weigh the issue of support for facilities renewal on America's campuses. Why is this an issue for the Congress and just a State and private sector problem?

In my view, Mr. Chairman, it is a national concern for three reasons. First, because our colleges and universities are a national resource, vital to the ability of America to maintain its position as the most creative country in the world.

And while the great creative advances have their origin in the mind, facilities, equipment, and technology are often vital to the practical realization of an idea.

Second, the task of renewing higher education facilities is so enormous that the resources of every level of government, as well as the private sector, are necessary if we are to make substantial progress.

Finally, the Federal Government historically has sought to promote access and choice in higher education. Support for renewing the physical resources of a broad spectrum of institutions will help ensure that students have meaningful choices.

These are the legitimate concerns of our National Government, concerns that have found expression in national initiatives since the Morrill Act. The recommendations for title VII submitted by the higher education community provide a good starting point for your deliberations on how best to respond to today's needs and those of the next decade.

In essence, these proposals would reorder the priorities of the current legislation, emphasizing renovation whenever possible and turning to construction as a last resort. This approach makes sense both from the standpoint of cost effectiveness and in terms of the needs of higher education.

It would enable us to stretch out the useful life of existing facilities and make maximum use of the available dollars. It also makes sense to retain the current law's State allocation and review process, as proposed in the recommendations. This will help ensure that funding priorities reflect local needs.

Mr. Chairman, while I am convinced of the merits of these proposals, I also encourage the subcommittee to explore additional approaches to financing renovation and renewal.

For instance, in New Jersey, private institutions like Seton Hall can participate in the State's authority to issue tax-exempt bonds, but only about half the States permit such participation.

Perhaps incentives should be established to encourage States to allow participation, or perhaps access to such financing could be provided through a national program, much as the Federal insured Student Loan Program provided access to insured loans in States without State guarantee agencies.

Other financing options might include guarantees and insurance for higher education borrowing from taxable sources. By adding such alternatives to the basic Federal grant and loan programs, institutions of higher education would be in a far stronger position to take advantage of private capital markets, and the impact on the Federal budget would be minimized. This could be done through the Department of Education or an independent agency.

The need for action is acute and well documented. For every well-endowed private institution—or generously funded public institution—building a new high-technology center, there are 20 schools fighting to make ends meet, to modernize laboratories, classrooms and libraries.

Several years ago, the term "crumbling infrastructure" gained currency as a description of the deteriorating condition of America's highways and bridges.

Higher education's physical plant is dilapidated and crumbling, jeopardizing America's intellectual and scientific infrastructure. If we are serious about competing successfully in the world, we must take prompt and effective measures to ensure that this and the coming generations of students and researchers have the facilities they need to cultivate excellence.

Mr. Chairman, I want to close by saying how much we at Seton Hall appreciate your hard work and that of the members of the subcommittee on behalf of higher education. I will be glad to answer any questions you may have.

Thank you.

[The prepared statement of Msgr. John J. Petillo follows:]

PREPARED STATEMENT OF MSGR. JOHN J. PETILLO, CHANCELLOR, SETON HALL UNIVERSITY, SOUTH ORANGE, NJ

Mr. Chairman, Mrs. Roukema, and Members of the Subcommittee:

I am Monsignor John Petillo, Chancellor of Seton Hall University, and I appreciate the opportunity to participate in these hearings on the reauthorization of the Higher Education Act and to discuss with you the facilities needs of higher education. Your strong leadership, Mr. Chairman, and that of your colleagues, will be necessary if we are to address successfully the problem of capital renewal in our institutions of higher education.

Seton Hall University is a comprehensive liberal arts institution with 9600 students. We are located in South Orange, New Jersey, which is approximately five miles from Newark, the state's largest urban center, and twenty miles from New York City. Seton Hall is the largest Catholic University and the second largest private institution in New Jersey.

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Mr. Chairman, we are fighting the facilities war on all fronts. In the last five years, we have built a new seminary, initiated steps to double our dormitory capacity, spent $4 million catching up on long-deferred maintenance, and have begun construction of a Recreation Center. We are facing a massive renovation program. Most of our facilities are 45 to 50 years old. We need to spend $9 million to renovate and equip our science building and eliminate serious safety hazards; we need to spend $1 million on our library building and $2.5 million for our main classroom building which also houses our computer center; we need to spend $2 million for asbestos removal; $750 thousand improving handicapped access; and, if new regulations are adopted by the State of New Jersey, $3 to $8 million to conform to new fire codes. A conservative estimate of our needs just for renovation and rehabilitation is $20 million dollars over the next five years which could double over the next ten years.

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Seton Hall's situation is not unique. Ten years ago it was estimated that 20 percent of our nation's higher education facilities were in need of replacement, translating into $40 to $50 billion in 1982 dollars. Judging by our experience at Seton Hall the situation is probably worse rather than better today. And, as if raising that kind of money were not sufficiently staggering, we are now faced with a series of tax proposals that threaten our already limited fund-raising ability. If the tax deduction for charitable giving is eliminated or sharply curtailed or if private higher education institutions are denied access to the tax exempt bond market, it could be a death blow to many institutions of modest means.

It is against this backdrop that the subcommittee and the Congress must weigh the issue of support for facilities renewal on America's campuses. Why is this an issue for the Congress and not just a state and private sector problem? In my view, Mr. Chairman, it is a national concern for three reasons. First, because our colleges and universities are a national resource, vital to the ability of America to maintain its position as the most creative country in the world. And while the great creative advances have their origin in the mind—facilities, equipment, and technology are often vital to the practical realization of an idea.

Second, the task of renewing higher education facilities is so enormous that the resources of every level of government, as well as the private sector, are necessary if we are to make substantial progress. Finally, the federal government historically has sought to promote access and choice in higher education. Support for renewing the physical resources of a broad spectrum of institutions will help ensure that students have meaningful choices.

These are the legitimate concerns of our national government, concerns that have found expression in national initiatives since the Morrill Act. The recommendations for Title VII submitted by the higher education community provide a good starting point for your deliberations on how best to respond to today's needs and those of the next decade. In essence, these proposals would reorder the priorities of the current legislation, emphasizing renovation whenever possible and turning to construction as a last resort. This approach makes sense both from the standpoint of cost-effectiveness and in terms of the needs of higher education. it would enable us to stretch out the useful life of existing facilities and make maximum use of the available dollars. It also makes sense to retain the current law's state allocation and review process, as proposed in the recommendations. This will help ensure that funding priorities reflect local needs.

Mr. Chairman, while I am convinced of the merits of these proposals, I also encourage the subcommittee to explore additional approaches to financing renovation and renewal. For instance, in New Jersey private institutions like Seton Hall can participate in the state's authority to issue tax exempt bonds, but only about half the states permit such participation. Perhaps incentives should be established to encourage states to allow participation, or perhaps access to such financing could be provided through a national program—much as the federal insured student loan program provided access to insured loans in states without state guarantee agencies. Other financing options might include guarantees and insurance for higher education borrowing from taxable sources. By adding such alternatives to the basic federal grant and loan programs, institutions of higher education would be in a far stronger position to take advantage of private capital markets, and the impact on the federal budget would be minimized. This could be done through the Department of Education or an independent agency.

The need for action is acute and well documented. For every well-endowed private institution—or generously funded public institution—building a new high tech center, there are twenty schools fighting to make ends meet, to modernize laboratories, classrooms and libraries. Several years ago, the term "crumbling infrastructure" gained currency as a description of the deteriorating condition of America's highways and bridges. Higher education's physical plant is dilapidated and crumbling—jeopardizing America's intellectual and scientific infrastructure. If we are serious about competing successfully in the world, we must take prompt and effective measures to ensure that this and the coming generations of students and researchers have the facilities they need to cultivate excellence.

Mr. Chairman, I want to close by saying how much we at Seton Hall appreciate your hard work and that of the members of the subcommittee on behalf of higher education. I will be glad to answer any questions you may have

Mr. FORD. Thank you very much.
President Fox.

STATEMENT OF EDWARD A. FOX, PRESIDENT AND CHIEF EXECUTIVE OFFICER, STUDENT LOAN MARKETING ASSOCIATION

Mr. FOX. A number of years ago, I had the opportunity to hear the president of my alma mater, Frank Rose of Cornell, speak to a panel talking about the needs in the area of facilities. He is an ex-president of the University of Michigan. This summer, I had the opportunity to spend time with the current president, Dr. Harold Shapiro, and I got a further indication of the problem with facilities, the deterioration of the last few years, and the problems facing the higher education community.

In the interim, Sallie Mae had been approached by a number of institutions looking for accommodations from us as a wholesale provider of credit in higher education, and I have had the opportunity to work with Mr. Harvey Kaiser, who wrote the book, "Crumbling Academe," and we have gone through that institution, building by building, and roof by roof, at the repairs that are going to have to be made there.

The $40 to $50 billion number of deferred maintenance is probably reasonably accurate, that there is a considerable amount of work to be done to bring campuses to code, and to provide for new instrumentation, through research facilities and the like.

There is a very large amount out there that is going to have to be managed. For the majority of educational institutions, the resources are not at hand, and they don't have the opportunity to generate or borrow moneys to meet these needs, and they can't raise tuitions in the near term.

In conversations with you in particular, sir, we have been encouraged to try to figure out ways in which a limited amount of Federal resources might be leveraged to induce private capital to participate in solving this problem. It is a very difficult problem.

The private sector has been willing to make certain commitments to those institutions that are investment grade, and they put capital into 280 of the 3,500 educational institutions, through the vehicle of tax-exempt revenue bonds, and there have been some accommodations that have been made on a taxable basis, but by and large, a very small percentage of institutions have been able to raise money in the marketplace, and certainly those institutions have raised only a small portion of their needs.

How do you leverage and get more bang for the buck? We start looking for models, working with you and others, and try to draw on the research and find some models, find a parallel, a solution to this using limited Federal resources.

The idea we have started to explore is a public-private partnership, where private and Federal capital would be put into a pool which would form the basis for the creation of an insurance corporation, the purpose which would be to provide assurance to lenders, either tax-exempt or taxable basis, that alone would be paid back, that if a bank, investment banker, or any other investor in higher academic facilities were to make a loan, that there would be assurance from some third party that that loan would be paid back and give them confidence in the making of the loan in the first place.

We would envision that this be roughly $25 to $30 million a year of seed money for a period of 5 years, the bulk to come from Federal appropriation and some portion to come from the private sector, private capital, that these moneys over 5 years, say, would develop into a resource of about $150 million, that this entity would be created and run as a business with actuarial standards, sound business practices, that would accept applications from higher education institutions for this insurance, which would make this insurance available for those institutions whose financial projections were sound, whose business plan was reasonable, and expectation for repayment was probably, and would provide this insurance for an insurance premium the way other insurance companies operate, and would induce the local bank or others to extend capital knowing behind the institution was a physically sound insurance entity that would assure repayment of the accommodation.

If this thing is sound, run prudently as a business, and develops the kind of seed money capital, plus premium income, you could see over a 5-year period, 300 or 400 million dollars' worth of total capital, perhaps approaching $1 billion by a 10-year period.

We think that that kind of resource would support perhaps $5 million of lending within 5 years, and perhaps as much as $10 million over a 10-year period. It is certainly a beginning point and adds on to the other initiatives being undertaken.

The Federal Government's participation would require some governance in the organization, but a public-private cooperation is the way to go. The discipline of the marketplace, of a freestanding entity, would govern this institution to be successful and to be managed with that kind of discipline to survive.

I think it is inappropriate for me in a limited period of time to describe in some great detail how this might work, but we have been kicking around the concept of such an insurance entity for a couple of weeks now, and we think it would work and there would be support in the higher education community for this kind of an institution.

We think the notion that it would have to function as a business is supportable, because we think that if it were not to function as a business, the creditworthiness would be debased quickly, and its worthiness as an insuror would dissipate and nobody would get any benefit out of it.

We put as much detail into the statement that is submitted to the record as we are capable of putting in the record at this time. We have a great deal more information, and we have been looking at other models, but by and large, we think the thing could work and could be put in place in a relatively short period of time.

The public-private is important, because the private sector at this point in time has not been able to get deeply enough into the so-called high-quality, financially secure institutions, but only been able to provide support for the ones that are investment grade institutions.

If you get the private sector participating in this thing, I think that the discipline will be there. There will be more capital in support of it.

It shows that they are willing to put their dollars up at the same time that the Government is, and more important than anything else, it defines the Government's contribution, limits it, and it is not an open-ended entitlement, and it is a freestanding entity that will have to support itself with the two sources of capital, and has to meet the business standards with the capital it has in hand.

We at Sallie Mae would like to participate in something like this, and whether we provided capital or had a managerial role is not as important as getting it off the ground.

Our ability to make investments in education facilities is not tied specifically to this recommendation. We think that we can make investments and a meaningful contribution whether this kind of a plan gets in place or not.

This program would significantly increase the number of institutions who have access to credit, and would dramatically increase the number of participants who would be willing to make accommodations in support of higher education, but we think we can make a contribution with or without this kind of initiative, and go out there, and with our ability to deal with higher education institutions and our knowledge of them on the wholesale bases, we could provide credit in addition to that, which is already out there in support of higher education facilities.

That basically ends my comments. There is a need, and there are some ways it can be dealt with, and it can be dealt with in such a way the Federal liability is limited and controlled and probably over time, there is a way they can put a lot of dollars into higher education facilities.

The problem exists and there is a need for a lot of that money out there today, Mr. Chairman. Thank you very much.

[The prepared statement of Edward A. Fox follows:]

PREPARED STATEMENT OF EDWARD A. FOX, PRESIDENT AND CHIEF EXECUTIVE OFFICER, STUDENT LOAN MARKETING ASSOCIATION

Mr. Chairman, members of the Subcommittee, I am Edward A. Fox, President and Chief Executive Officer of Sallie Mae. I am pleased to appear before you today to discuss the capital shortage for academic facilities, the market conditions which we believe impede the flow of private facilities capital, and to recommend how you might help remove those impediments through a public-private partnership which would insure private sector investments.

Mr. Chairman, in presenting this proposal, I hope to respond to the challenge you presented to me and my staff several months ago—to find a solution to the problem of capital inadequacy for the financing of facilities construction which does not entail a huge expenditure of federal dollars. As the Subcommittee is aware, we at Sallie Mae have been investigating the capital shortage for academic facilities for several years. As a wholesale financial intermediary providing credit in support of education, we believe that it would be a reasonable extension of Sallie Mae's authorities to permit direct investment, on a collateralized basis, for the financing of facilities at postsecondary education institutions.

Our research indicates that there is a major problem for colleges and universities in financing new construction, renovation of existing facilities, and lab equipment and research instrumentation—infrastructure vital to our educational system's ability to support the needs of our society and our economy today and into the twenty-first century. Quantifying the need for facilities capital is imprecise; however, we believe the need to be at least $20 billion and perhaps as great as $50 billion.

Over the past 35 years, enormous changes have taken place in the infrastructure of our higher education system. From 1950 to the early 70's, the federal government financed or assisted in financing significant new academic facility construction. By 1981, total higher education physical plant square footage had increased over four fold, serving our national needs during a period of significant enrollment growth. Unfortunately, the means to provide maintenance of that infrastructure has been and continues to be lacking. While enrollment growth will most likely be flat for the next several years (until the baby boom "echo effect" emerges), current facility space must, at a minimum, be kept to code. It is becoming clear that if a means to provide capital for the maintenance of our colleges and universities facilities is not made available, the system will not be able to sustain itself. For a majority of colleges and universities, presently available sources of capital cannot meet this need.

Sources of funds for academic facilities, research instrumentation and equipment are limited. Educational institutions may: A) fund internally, B) raise funds (gifts/grants) externally, or C) borrow. Most institutions have difficulty in obtaining gifts and grants and in raising tuitions to cover these costs.

With regard to their internally generated funds and other income, universities have done what most state and local governments have been compelled to do over the last fifteen years; they have put scarce dollars into people investment and not into infrastructure. With regard to borrowing, colleges and universities, as nonprofit organizations, are generally excluded from the private capital markets with the exception of the municipal tax-exempt bond market. The municipal market, however, has provided only limited assistance for facilities financing because of the competitive nature of the market, high issuance costs, and the market's requirements for a strong credit rating. Smaller issues of under $15 million and issues by institutions which are not considered investment grade simply do not get done. In fact, due to the constraints of the market, there are fewer than 300 universities that have issued tax-exempt bonds to finance facilities. These institutions represent less than 10 percent of the nation's colleges and universities. Thus, the vast majority of the colleges and universities which need financing for facilities are denied access to any useable source of funds. Many of these institutions are financially sound, but they lack top investment rating or their needs, while large for them, are too small to make traditional financing cost-effective.

The problem which must be solved is that of providing bond or loan funding access to all colleges and universities which are "fundamentally sound" rather than only those which are of "investment grade" quality as determined by the rating agencies.

In our estimation, no viable solution is possible without some involvement of the federal government. The problem is simply too extensive and too severe. On this premise, we have attempted to define a solution which entails the least liability for the federal government and the greatest potential for using federal funds to leverage private capital. In fact, the possible solution we have defined is not dissimilar in concept to the policy underlying the GSLP; using government insurance to spur private investment.

Mr. Chairman, we would recommend the creation of a federally sponsored insurance corporation—not a secondary market like Sallie Mae but an entity which would insure loans utilizing private capital to educational institutions for construction, renovation, or instrumentation. This corporation would function as a business, based on sound underwriting standards and practices to insure the integrity of the private sector loans and the federal government's seed capital investment.

As an example of how the system we propose would work, a college needing to borrow could arrange a potential financing with a bank on either a taxable or tax-exempt basis, and would then apply to have that loan guaranteed by the new corporation. Assuming the college was financially sound, the insurance corporation would agree to guarantee the repayment of the financing, inducing the bank to make the loan. An insurance premium would be paid by the educational institution to the insurance company for undertaking the risk.

We believe this approach would accomplish three results. First, the availability of insurance will encourage private lenders and investors to risk an investment they normally would decline, thereby increasing access. Second, the insurance fund, managed in a sound manner, will grow over time, enabling it to underwrite more financing and somewhat greater risks, again increasing access. And third, the creation of such an entity in the market should up-grade the issues of those institutions which are presently investment grade, thereby reducing their costs. In sum, a facilities insurance corporation could significantly expand access to private capital through the provision of a modest federal investment.

That federal investment would not need to be large because we would recommend that the facilities insurance corporation be created as a public-private partnership. For example, if the federal government's share of seed money to begin the insurance fund was $25 million a year for five years, we would recommend private sector participants be allowed to buy into the corporation at a percentage of the federal share, perhaps $5 million a year for five years. Once the corporation was established it would operate independently with no further investment from or recourse to the federal government. Therefore, the total federal commitment would be the original seed money. The insurance fund would operate on its earnings plus income from premiums paid for its insurance. The investors, including the federal government, would share the governance of the corporation and its profits.

This type of facilities insurance corporation would provide maximum leverage for minimal federal dollars. While this proposal is by no means a panacea for the huge problem of financing facilities, we believe seed money of a comparatively small amount could be translated into leveraged capital sufficient to begin redressing the capital needs of colleges and universities. Depending upon risk assumptions and premium income, an insurance corporation with a capital base of $150 million could, over five years, insure and encourage private capital investment in education facilities in excess of $5 billion. The greater the initial investment, obviously, the faster the corporation could be established and the greater risk it could assume.

A cautionary note: in order to effectively manage the insurance corporation, it would have to be run as a business with actuarial standards and valid risk assessments and premium levels. Absent these, the underwriting will be worthless and rejected by the market. Therefore, not every proposed loan to every college would get insurance, particularly at the start. As the reserves of the fund increase and as default experience develops over time, we believe the corporation would be able to take greater risks and cover more loans. Even then, however, it should be understood that some institutions would not have sufficient creditworthiness to obtain insurance for their financings.

In addition, this proposal would not subsidize the rates paid by institutions for financing. Insurance will have an indirect effect in creating competition for such financing and in strengthening the market for such debt. However, cost considerations might still foreclose some institutions. This is a public-private sector solution—it is not a bail-out.

We believe that a corporation financed by a public-private partnership to provide insurance for loans made with private capital to colleges and universities provides advantages unobtainable by any other means:

Access to capital by the greatest number of institutions for multiple uses;

The least exposure for the federal government;

Effective use and encouragement of private capital of all types in support of education; and

The greatest amount of leverage of limited seed capital.

We believe this proposal could work, Mr. Chairman, and, while a formal proposal obviously has not yet been prepared or approved by its Board of Directors, Sallie Mae would be a willing investor in this enterprise, were it to be undertaken in a prudent business manner with appropriate controls and governance. We would also be willing to run the corporation, if that were your and the committee's desire. Of course, Mr. Chairman, my staff and I are, as always, available to work with you and the committee if our expertise can be of use on this or any other proposal. You set us a considerable challenge, Mr. Chairman, and I would be remiss if I did not mention we were not alone in trying to meet that challenge. Numerous members of the education community gave us considerable assistance, in particular, Dr. Harold Shapiro, President of the University of Michigan, and his staff were extraordinarily helpful.

Thank you, Mr. Chairman, for this opportunity to work with you and the Subcommittee in devising a public-private sector solution to a problem we all recognize.

Mr. FORD. Thank you very much.

I am very much interested in your approach. At the bottom of page 4, you laid it out rather simply and directly, and I must admit for the first time, it makes real sense to me, because I have the same problem President DiBiaggio has. From you people with money, talking about leverage has a very strong appeal, because it is not a permanent commitment to facilities investment.

Do you think that at the rate of $25 million from the Federal Government, $5 million from private investors per year over a period of 5 years, will get you to the $150 million, and on the basis of that $150 million, plus the premium you collect from the insured people, that the corporation ought to be able to continue thereafter without additional appropriations?

Mr. FOX. Certainly, the amount of risk the corporation could undertake would be a function of its capital. To the extent that was the extent of its capital, you could get to 5 to 10 billion dollars' worth of insurance in place to encourage that level of investment.

If there was more capital, you could do more, but that is a judgment that has to be made by the Congress. Given the $5 to $10 billion number, that would be sufficient. As long as you could collect insurance premiums from the user of insurance, those reserves could be managed efficiently and safely invested, you could build up a good nest egg.

If you were not managing any egregious income—you want to create a facility to get access to credit. The answer is yes, we could stop the Federal contribution at that point, and maybe even pay it back.

Mr. FORD. If this were put in place, and after 3 or 4 years of experience, it was apparent that it was going to work, and the only limitation on it reaching more people with larger amount of money was the size of the capital base, Congress would be strongly motivated at that time to increase its commitment for the purpose of expanding that base, but they would have a sound basis, whoever would be doing it at that time, for making a judgment on whether the investment was worthwhile.

Just as the Guaranteed Student Loan Program has provided far more money than any of us dreamed in educational funds at its inception, I think that the idea that has grown out of Sallie Mae, since it was created, and the maturation of the money market, this whole college financing picture would indicate that an awful lot of people who maybe 5 or 10 years ago were not interested in participating maybe would be.

The time is right, the success of letting people and institutions to borrow rather than play the grant game for an indefinite period of time has proven itself.

We look at the facilities money this year, there is $50 million in there, but $22 million of it was earmarked by the Appropriations Committee for specific building projects. I played that game too, and helped friends get buildings, and one of the experts is sitting back there, who knows how to get them in there.

I am afraid that the temptation would always be there. Tom has already anticipated the money crunchers over there by suggesting, if we were to do this, we provide a trigger, in order to get these pet projects for people, you have to first get the $25 million for the insurance fund, and if you can get more money than the 25, toward the 50, this year's level, you can set that aside. But the first 25 off the top would go into it.

That would give the assurance to the people you were asking to invest during the first years of this program, that indeed the Federal commitment would likely be kept, because it would hold hostage all the people with enough clout to get these special projects, they would have to by force of that fight for the security of the insurance program, in order to get a license to go hunting for their own money, so Tom has been thinking it through already.

If you could give us some models, how you would structure the corporation, the authority by which we would create it, what we would like it subject to by Federal regulation, and the other things that were done in the creation of Sallie Mae, not as involved, nor as complex, so we could flesh out legislative proposals for the members of the committee to consider.

And I want to say, I am grateful for the public contribution that you and your experts offer—I met with Tom the other day after he spent 3 hours with one of your people, and while he is one of the smartest Ph.D.'s I ever met, he was trying to keep up with your money managers' fast maneuvering of funds.

You can talk about leveraging money so fast that it makes visions of sugar plums dance in my head, but we need the expertise that you have developed over there over the years, and in figuring out a simple, understandable structure for this.

I would solicit earnestly your continued voluntary—we like your price, Ed. You work very cheap. We like to take advantage of you to the fullest extent that we possibly can, and it is very safe to rely on your judgment in these matters and your track record.

Mr. Coleman.

Mr. COLEMAN. Mr. Fox, for the public record, I might ask some of the same questions I asked you when we met privately. Would you comment on why you have initially structured this 4 to 1, public funds, private funds, is there anything magic in that?

Is that the usual way it is done? Could the private sector contribution be increased to 5 to 1?

Mr. FOX. There is nothing magic about it. We were trying to consider a realistic assessment of how much capital the institution would need up front, and the probability of what you could probably get out of the private sector.

We were looking at approximately a $50 to $60 million a year commitment in title VII today, on the assumption that $25 million a year of that might be directed toward this program, and that gave us a portion of what we thought would be the minimum amount of capital and we reckon we need $25 million from the private sector.

We certainly would be willing to participate in this thing if it was properly constructed. I am not sure about the willingness of anybody else. It is just an estimate.

Mr. COLEMAN. Well, in order to ensure the participation of both public and private, when we got down to the nitty-gritty of writing something up, should we have a floor that says at least a certain amount should come from the private sector?

Mr. FOX. If we reach the point where we had a bona fide recommendation that was consistent with sound business practice, my corporation would be willing to subscribe to that.

Whether others might have an interest or not is another matter. There are others who participate in these programs, albeit much more, or much safer investment grade kind of programs than this might be as perceived in the marketplace.

You might find that you would have a lot of attention from outside people to participate and that might reduce either your needs or enhance the capital of the corporation earlier.

I couldn't answer for others.

Mr. COLEMAN. You do not ask for a Government guarantee of this institution's obligations?

Mr. FOX. Correct.

Mr. COLEMAN. The bonds that are written would not be assumed to be underwritten by the U.S. Government or any window at the Treasury or anything else connected in that fashion?

Mr. FOX. The purpose of this entity is a stand-alone, bona fide, noncontingency, nonliable entity. We are trying to figuratively proscribe the Government's liability in this thing.

It would be stated clearly that this was the capital supporting this entity, and you have no claim on anybody or anything other than the capital within this entity, and that is why it has to be run in a businesslike way, prudent with legitimate bona fide risk assessment, because you don't want to debase the quality of that capital or believe the capital is not sufficient to meet its long-term requirement.

Mr. COLEMAN. The reason we are having such an institution is to make it more practical and realistic for these people to raise these funds that they can't do separately, and also it should reduce the interest rates, because this money is now guaranteed through this corporation, which is stronger than the institutions standing alone.

Can you give us an estimate, because you are very close to all this interest rate business, what type of assistance such corporation might offer to a borrower, as far as bottom line ability to raise more or less expensive funds this way, 1 percent or less than that, or more?

Mr. FOX. The first answer is that for the majority, 90 percent of educational institutions, there is not access to any money at any price at this time, because even though they are fundamentally sound institutions, they are not deemed to be investment grade or not selling issues in the marketplace of a size that is economically feasible for a public bond offering or whatever.

For those institutions, it is not a question of interest rate subsidy, but access to capital to meet their immediate needs. It may well be when they have access to capital, if the interest rate is too high or fully taxable, they can't afford it anyway, that the interest costs would prejudice the borrowing, the first answer is that this would provide access for those fundamentally sound institutions that otherwise can't borrow.

The second question has to do with interest rates themselves. If you were making these investment grade securities, putting this kind of a guarantee behind it, they would trade as a higher quality than junk bonds.

In any given market, the differentiation between grades changes, and at a time when money is very easy, and rates are low, for someone who otherwise could borrow without this, you might be saving less than half a 1 percent, and at another point in time, interest rates are high, you could be talking 2, 3, 4 percent.

We see this in the market all the time. It is not a given that all the time the savings are going to be the same. The differentiations based on credit change—there would be a saving, but it would vary.

Mr. **Coleman**. I wonder how institutions would receive this, as we go through this phase-in process, I understand you would like to build your capital up to $150 million, and it would take 5 years, assuming, to do that, are we not funding that portion of the program that you look for, and how do we resolve that?

I'd like our college presidents here to answer this question. Do you expect us to pay both ways until this thing is floated, or would you today or when it gets a little bit further off the ground, say, well, we understand you are making an investment in the future, we will go without for 5 years.

Or do I misinterpret Mr. Fox's comments about having to build a nest egg?

Mr. **Fox**. Once the capital contribution is in place, the entity can commence operations. It can't build itself to the total $5 or $10 million until the capital accounts are proportionately increased, but it would be in business immediately.

Mr. **Coleman**. Less than 100 percent loss of funds?

Mr. **Fox**. You would have a multiplier that would be pretty significant in the first year, probably more like 20 in the first year. I would be hard-pressed to see how you couldn't do 400 or 500 million dollars' worth of insuring under a $30 million account.

Mr. **Coleman**. I think that this is a very interesting concept as well, and intriguing. Mr. Chairman, I know you had asked Mr. Fox to pursue this matter informally before, but I would think that the subcommittee, should go forward and ask Mr. Fox to develop a formal proposal.

Mr. **Ford**. If it is agreeable to you, I would like to have him, borrow him a little bit longer and have him work with our staffs, to see if they can put together an outline for us to look at of how we might present this to the rest of the committee as a legislative proposal.

Mr. **Coleman**. When could we expect a proposal?

Mr. **Fox**. I suspect a bare-bones outline could be constructed pretty quickly. There are probably some policy issues that you would have to address as to governance, and a number of other issues, and legislative drafting certainly of a bare-bones bill could be done quickly, and once we address some of the policy issues, then we can be more specific.

The first phase probably could be done in a couple of weeks.

Mr. **Ford**. Thank you very much.

Mr. Atkins.

Mr. **Atkins**. First, Mr. Chairman, I would hope that to the extent that we keep special projects funding in the statute, that we continue the current geographical distribution of those funds.

I would like to associate myself with your remarks, Mr. Chairman, in regard to the necessity for exploring a federally sponsored insurance corporation and follow through with a couple of questions.

When you refer to 90 percent of the institutions having no access to capital, do you mean private sector institutions, or public colleges and universities?

Mr. **Fox**. A number of States don't permit their institutions to issue tax-exempt securities, and we have reviewed, through Standard and Poors, all the issues that have ever been sold, tax-exempt securities, and we found about 280 colleges and universities have been able to sell tax-exempt securities, and there are approximately 3,400, 3,500 higher education institutions in the country today, so that is where the 90 percent number is.

Mr. **Atkins**. OK, but don't States borrow under their general obligation authority, and then provide that money to their public institutions?

Mr. **Fox**. There is appropriations, and where the State gets that money from, it is generated funds, bonding. Most of the institutions that need long-term capital and resources are encouraged to issue bonds in their own name rather than the State.

Only a limited number of institutions have been able to take advantage of that overtime. There has been approximately $2 billion a year on average of that type of security sold in the last few years, and there is a threat to the further issuance of that kind of security.

So, this year, a considerably larger amount can be sold in the first half. These institutions are public and private. We have seen Princeton, New York University, Penn State, or recently Johns Hopkins, but these are larger institutions who have good quality credit, endowment funds, or other pledgeable resources that have been able to do this.

Mr. **Ford**. I don't think that your appraisal of the status of the public institutions is entirely correct, because my feeling is in States like Michigan, and most of the Midwestern States that have similar structures with the colleges and universities, unlike California, Texas, and even to a large extent New York that has a unified university system, they are independent corporations in their operation.

Michigan, Michigan State, Wayne University, Northern, Eastern, have independent boards and except for basic money that they get from the State, which generally—they fight for the same way people come in here to get money, if they are going to undertake some sort of a project, they are sort of on their own, raising money, and indeed, we had earlier conversations with Mr. Fox and the president of the University of Michigan, who is looking for this kind of an avenue for institutions of that kind to use. What are they spending in that hospital?

Mr. **Butts.** Bond issue was $300 million.

Mr. **Ford.** They get a $300 million bond issue for some new university hospital, but try to do it for classrooms, so on, the legislature says, find it someplace else. They would be looking for it, and they don't have a history, as Mr. Fox said, of going out to borrow, but things have changed now, with the colleges and universities, and at the State level as well, and while I would agree with you, Mr. Atkins, there are probably more independent institutions who would find themselves, as Mr. Fox described them, as sound institutions, but not creditworthy, when examined as a corporation.

You will also find a number of public institutions in that same status, because of their limited relationship with the State, and the way the States takes the responsibility for their obligations.

Mr. **Atkins.** Do you have a sense as to the total borrowings presently, total indebtedness of higher education institutions in the country, and a sense of what they could sustain given their current financial situation?

Mr. **Fox.** We have looked at that. My guess is close to $10 billion of indebtedness outstanding from these revenue bonds have been sold, but I could be wrong.

Mr. **Atkins.** How about from other borrowings?

Mr. **Fox.** Leasing was utilized for short-term financing, and until the tax bill in 1984 killed that. There is a risk that tax-exempt issuances might be threatened, they are threatened right now by the existing proposed tax bill.

We are focusing upon the dimension of future need as expressed by the witnesses here, and it seems to be very, very large, and I don't believe that any borrowing will get done by any source until there is some reasonable assurance of repayment.

The institution that cannot show it can repay its obligation or have a fundamentally sound plan, they are not going to be able to raise any money at all.

The institution is going to have to show some investor somewhere it has the capacity to deal with its debt.

Mr. **Atkins.** Assuming that we create this kind of an institution, and it functions well, and Congress supports it for the insurance fund, are we then in a situation where there is some kind of maximum amount of borrowing that would be prudent for institutions of higher education? Will we have to concern ourselves with their borrowing more than what would be prudent for them?

Mr. **Fox.** It is essential, not only for the institution itself, that is making a request, that it be dealt with in a proven way, not given credit, it can't imagine or is inappropriate, but it is important for everybody else participating in the program that such a credit not be extended, because it would threaten the viability of the insurance fund if unacceptable losses were taken.

You have to be able to convince those people who are going to be making loans that if the school can't pay back the insurance fund is legitimate and it can pay back the loans, it can only do that if it practices sound underwriting standards.

The day they start exercising a bailout of an institution is the day it loses its credibility and can't function. It must know how to say no. Otherwise, it can fail.

Mr. FORD. Mr. Goodling.

Mr. GOODLING. No questions, Mr. Chairman.

Mr. FORD. We have to insulate it from congressional pressure. Thank you very much, gentlemen. You have given us plenty to think about and chew on, and I particularly appreciate you thinking about that deep pocket over there, the facilities revolving fund, and we might find a way now that is under our jurisdiction, along with facilities, to find a compatible family relationship with them, and get some capital there.

Mr. LESESNE. Mr. Chairman, could I present this for the record? This is not on the subject, but a matter you had asked for on the Pell Grants earlier?

Mr. FORD. Without objection, I have that up here. I overlooked getting it into the record. It will be immediately following your formal comments.

Dr. Shaila Aery, commissioner, Higher Education Coordinating Board of Missouri; Dr. Wilbur Meier, Jr., dean of the College of Engineering, Penn State; Francis F. Mills, director of financing resources, Boston College.

Without objection, the prepared remarks of each of the witnesses will be inserted in full in the record immediately preceding the point at which they give their comments.

Mr. GOODLING. I was going to give Dr. Meier a brief introduction, Mr. Chairman. His school defeated my alma mater on Saturday.

Dr. Meier completed his undergraduate work at the University of Texas, as well as his Ph.D., and has been a teacher, and administrator, top-flight engineering schools, Texas A&M, Iowa State, Penn State, and is an industrial engineer by training, and extremely active in the professional society work, and has been the dean of engineering at Penn State since 1981, and he is here today to discuss the complex issue of maintaining expensive and increasingly sophisticated equipment in computers which fill our academic engineering laboratories, and will offer his remarks on behalf of the American Society for Engineering Education and his engineering dean colleagues.

STATEMENT OF DR. WILBUR MEIER, JR., DEAN OF THE COLLEGE OF ENGINEERING, THE PENNSYLVANIA STATE UNIVERSITY

Mr. MEIER. Thank you, Mr. Chairman, and particularly Representative Goodling, thank you for that excellent introduction, and I want to thank you for the opportunity to speak with you on behalf of the American Society for Engineering Education, and the Engineering Deans Council, which is the official national organization for engineering deans in the United States.

We wish to present to you some concerns about a matter which we feel extremely important, and I will focus my remarks on the provisions of title VII of the Higher Education Act which deal with support for equipment, and in particular, attempt to acquaint you with a problem with respect to the maintenance of equipment, as well as the capital acquisition of that equipment.

A strong engineering educational system is essential to both the social and economic security and well-being of the United States. Engineering education today faces a series of very trying, major challenges which affect our ability to provide quality education to our students, and these challenges deal with a shortage of existing faculty, and the overcrowded classrooms and laboratories which we have, inadequate numbers of U.S. citizens pursuing advanced studies and facilities and equipment.

But pervading all of these elements is the facilities and equipment issue. It is a basic underlying issue which is fundamentally important to us and it deals with the existence and state of this equipment.

The acquisition of equipment is extremely important. It is vital to the education of innovative engineers in this country, and it is a problem of significant size. The National Society of Professional Engineers has estimated that it would take $2.2 billion just to provide state-of-the-art equipment in existing engineering laboratories, and these being instrumental laboratories, so it is an enormous problem, and it is a problem that we paid a significant price for in the marketplace in terms of the quality of our engineering education today.

But a major concern of engineering educators today is as well with the maintenance of existing equipment and particularly newly acquired sophisticated equipment. It is not now provided for, this maintenance of equipment is not now provided for in title VII of the Higher Education Act.

I have listed in my written statement numerous examples indicating the magnitude of the need and problems associated with acquisition and maintenance of engineering equipment at a variety of institutions across the country, and I would urge you as members of the committee to acquaint yourselves with the examples.

The element of equipment which is often overlooked and misunderstood has to do with maintenance of sophisticated equipment. I want to concentrate upon our experience at Penn State, because that is the area I know best.

And in particular, focus on engineering computing equipment. I could pick out other examples, but I will focus upon that.

The College of Engineering at Penn State, over the past 4 years, has acquired something in excess of $7 million dollars' worth of computer equipment, and we have had to use a variety of creative approaches to be able to acquire that equipment in that we could not afford to come up with the capital required to purchase all of that, and we have invested something in the neighborhood of $2 million in order to achieve this $7 million of equipment which we have gotten through equipment grants and gifts and other support, but we have acquired as a part of this now $400,000 per year requirement for maintenance associated with that equipment, largely maintenance contracts on this engineering equipment, and no one is providing us support for this, or recognizes this increased cost that we have.

It is a critical annual recurring cost, not just a one-time cost; that is, that is the significant part about it.

Funding agencies do not provide for it. Industry does not provide maintenance funding. State dollars are not adequate and tuition funds are also strained.

The size of this in our particular college approaches the size of the expenditure for one of our departments, and it amounts to something in the neighborhood of 5 percent of our total operating budget, just for computing equipment.

Self-maintenance is not the answer, because of the diversity of equipment and the requirement that we would have in terms of the number of people that we would need to provide for that maintenance, as well as the spare parts inventory that we would have to carry to do that.

The first part is $100,000 for one computer system. We need your help in recognizing and taking action on this problem. It appears that equipment grants authorized under title VII do not address directly the cost of maintenance as an integral part of the total equipment cost.

We are recommending that you permit an amount of, say, 10 to 15 percent of a given grant to be dedicated to maintenance of the equipment, and this will provide us the much-needed flexibility in caring for this equipment.

You further permit part of this 10 to 15 percent to be used to fund the upgrading of existing equipment which increasingly is a problem for us, and these costs, both maintenance and replacement, are significant costs which we must bear now.

We believe reserving this percentage for equipment grants under title VII for maintenance and replacement is essential and vital to the American engineering colleges today, and we urge the committee to join us in addressing this critical problem.

I would say, if you can help us with this issue, we can assure you that we will continue to provide the first quality engineering education to our students that is so vital to the success and security of this Nation.

Thank you, Mr. Chairman, and Representative Goodling.

[The prepared statement of Wilbur L. Meier, Jr. follows:]

PREPARED STATEMENT OF WILBUR L. MEIER, JR., DEAN OF THE COLLEGE OF ENGINEERING, THE PENNSYLVANIA STATE UNIVERSITY

Chairman Ford and members of the subcommittee:

Good afternoon. On behalf of the American Society for Engineering Education, I'd like to thank you for inviting me here today to join in your discussions of Title VII of the Higher Education Act.

The American Society for Engineering Education draws its membership from a spectrum of individuals and groups which share a deep concern for the health of the country's engineering education system. Members include the professional engineering societies, over 125 engineering-oriented industries, several government agencies, and over 10,000 individuals, most of whom are faculty. In addition, the more than 250 accredited engineering schools of the country—including Penn State—belong to ASEE and find special representation through the Engineering Deans Council, the official national organization of the deans of engineering. The entire membership of ASEE is bound together by a common interest in assuring that this country's future engineers receive the finest education available.

The field of engineering and the engineers who practice across its more than two dozen disciplines make an incalculable contribution to this country's social, economic, and military strength. Strong national security, an improved standard of living, and unchallenged world technological leadership are obvious benefits to be had from a healthy U.S. engineering enterprise. As this country becomes more technology-oriented, our engineering schools will be called upon as never before to turn out the innovative people and research that will keep us on top. Sustaining a grade-A-quality educational and research environment will become an ever more pressing priority. Paradoxically, pressure to turn out the quality and quantity of well-educated engineers needed by industry has already begun to threaten the ability of our schools to provide the finest education possible. Overcrowded classrooms, obsolete and overworked equipment, and the loss of graduate students—potential first-rate faculty—to industry all present special challenges.

The question is not, can we meet the challenge. We must. The question is how.

It can be argued that with the current economic conditions, less revenue is available for investment in engineering education and research. But this is a fallacious argument. The alternatives are increasingly dismal, resulting in a self-defeating spiral that spins us into the ground. They set the stage for irretrievable loss of young talent and creativity, leading inevitably to the destruction of our standard of living and America's ceasing to be a leader in the world marketplace.

I would like to focus my remarks today on just one of those problems: The state of our academic engineering laboratories. In particular I hope to discuss an issue that rarely wins the high-profile attention it merits—the special costs of keeping our laboratory equipment in top shape.

In the remarks that follow, I will explain exactly why funds for the maintenance of academic engineering equipment is as vital an issue as the acquisition of the equipment itself. I believe that Title VII represents an excellent opportunity to address this little-understood problem.

You may be familiar with several of the studies conducted in recent years which detail the worsening condition of our academic laboratories. The most commonly quoted study of engineering school laboratories is probably a 1982 report by the National Society of Professional Engineers which describes a need for $2.2 billion in new instructional equipment to bring our labs up-to-speed with industrial engineering practice. This estimate does NOT include computers.

Acquiring hands-on experience on modern laboratory equipment is essential to the preparation of skilled engineers. It can be likened to the importance of clinical experience for physicians. You would not want your surgeon to operate on you never having practiced his skills in a laboratory setting. But, many of our students are learning their fundamental engineering skills on equipment that was in place before they were born. Indeed, I have faculty members who are younger than the equipment they are using for instruction and research. The similarly desperate need for new research equipment was vividly evidenced three years ago by the response of schools to the Department of Defense's then new University Research Instrumentation Program (URIP): DOD received 2,500 proposals representing requests for $646 million worth of equipment. The program had a total of $30 million to award that year.

This $2 billion-plus problem is not going to be solved overnight. However, we are seeing—quite possibly in part as a result of the 1981 established R&D tax credit—more gifts of equipment to schools from industry. Such gifts are vital to promoting innovation and creativity among engineering students. DOD is hoping to supplement its URIProgram through part of a new FY86 initiative. Active partnerships among schools, industry and government will be vital to tackle this monumental equipment vacuum.

As those who are affected most by the quality of U.S. engineering education pull together to respond to this crucial concern, it will be imperative to address very explicitly the too-often overlooked, too-little understood costs of maintaining the sophisticated equipment that fills our labs. High student enrollments, coupled with limited equipment, have increased wear-and-tear on our most important laboratory resources, particularly those used for instruction. It only makes good sense to be sure that we get the longest, most productive life out of each piece of equipment that we have.

Let me give you an example of an important piece of laboratory equipment that requires expert maintenance to keep it functioning. Used to measure fluid velocities, a "hot wire anemometer" consists, simply described, of an extremely small wire—smaller than a human hair—supported on a probe and placed in a fluid stream. The wire is electrically heated and the stream cools the wire. The amount of energy taken from the wire is measured electronically and reveals the velocity in the small region where the wire is located. To prevent any distortions in the results, vigilant maintenance of this instrument is vital. Care for this type of anemometer runs about 15 percent per year of the purchase price, a little higher than the 10 percent per annum rule-of-thumb frequently used for most engineering laboratory equipment. Two other devices that address the same fluid velocity problem through the use of laser light (Laser Doppler Anemometer and Laser Doppler Velocimeter) cost anywhere from $100,000 to $500,000 each.

The anemometer is only one example of research or instructional equipment that needs regular care to perform its function. A recent survey by the National Science Foundation of 1,200 physical and computer science and engineering departments noted that no less than 80 percent of the research instrument systems in the $10,000 to $1 million range required some type of maintenance in FY82. The same survey noted that "in effect, for every dollar spent to acquire new research equipment, an additional 25 cents was spent to maintain and repair existing equipment." Clearly, the cost of maintaining equipment is an integral factor in running a laboratory.

These maintenance costs are often 10 to 20 percent of the capital value of the equipment. In the Penn State College of Engineering, we have equipped our Engineering Computer Laboratory with $6 million of equipment over the last two years. We paid only $1.5 million of this, but are now averaging more than $250,000 per year in operation and maintenance costs. The problems with maintenance of computer equipment are many: the spare parts packages required for each mainframe can easily run as high as $200,000 maintenance manuals alone are $20,000; technicians must be trained to work on each individual mainframe; regular upgrading of equipment and software also is required for optimum use of the computers.

Computer maintenance is not the only area of expense. During 1984-1985, the Penn State College of Engineering paid nearly $400,000 in overall equipment maintenance costs.

Maintenance can be handled several ways. Service contracts provide perhaps the most comprehensive coverage. The price tag, however, particularly for computer systems, can be overwhelming. The dean of engineering at Tennessee Tech observes that on a $1 million Calma computer system purchased recently for the school's new computer-aided design laboratory, the $108,080 annual service contract is "more than one entire supplies and expenses budget was 10 years ago." Also, service contracts are often "graded," the cost tied directly to the speed of service. Balancing cost against quality of service can be tricky.

Schools can also opt for ad hoc outside repair of equipment. This is particularly useful if the school doesn't have the in-house resources for dealing with complex equipment repairs and can't opt for a full service contract. The potential drawbacks are speed-of-service and the unforeseeable number of individually-paid-for breakdowns.

Thirdly, schools can maintain staff and shops specifically for in-house repairs. While quick service and frequently lower costs can be obtained through this method, the increasing sophistication of most laboratory equipment often requires the care of the manufacturer. The dean of engineering at the University of New Hampshire notes that "over the past five years, the nature of the maintenance problem has changed from one in which equipment was relatively simple and could be maintained by local technicians to one in which the complexity of modern equipment is such that maintenance contracts are really required on nearly everything." Particularly for smaller schools, the cost of the appropriate test equipment for repairs alone can be prohibitive. Under the NSF survey mentioned earlier, engineering departments as a whole rated their in-house instrumentation support services as follows: 3 percent—excellent; 50 percent—adequate; 41 percent—insufficient; and 6 percent—non-existent. The dean of engineering at an Ohio school observes that faculty sometimes maintain equipment on their own, "which detracts from their primary function of teaching and the generation of new knowledge." Another school, in Wisconsin, maintains some "duplicate" lab set-ups for undergraduates who must make up missed laboratory exercises, but "which also provides at least one set of spare equipment in the event of prolonged repair or shortage of repair parts." However, high enrollments probably don't allow many schools even such a small "luxury."

Most schools use a combination of all three methods to keep their laboratories in working order. Rarely, however, are the costs of these repair methods directly addressed by some of the most important channels through which schools receive their equipment. Industries which willingly donate much-needed equipment are reluctant to give money or services to support their gift. The reasons are many, including the lack of any tax incentive for doing so. This can make even the most badly-needed equipment a double-edged blessing. As the dean of engineering at Brown University notes about sorely-needed gifts to his school:

"(When it comes to offers of equipment), we usually are not in a position to look a gift horse in the mouth. Only one equipment gift to my knowledge has come with maintenance provided. Much computer equipment has been donated with the clear understanding that maintenance is our problem—potentially an expensive one!"

Some schools find themselves in the perverse situation of having to turn down equipment gifts occasionally because they believe that it would be imprudent to accept something they simply cannot maintain. In a 1984 American Electronics Association survey of electrical engineering department heads, 39 percent of the respondents indicated that they have instructional equipment currently not usable and 31 percent turned down offers of equipment donations because they lack service and repair monies. One Tennessee school had twice this year been forced to refuse equipment gifts because maintenance costs would have been too high to absorb. Another school in Kentucky recently received $1.5 million in computer gifts from IBM and the Harris Corporation. The combined annual maintenance charges for these gifts will be $135,000, even with the least expensive service contracts. The dean at the school notes that future—badly-needed—computer gifts will have to be operated without a maintenance contract.

Briefly, a few other illustrations:

One Florida college of engineering recently received a grant of a super-minicomputer and software from a major manufacturer. Valued at $340,000, the grant forms the basis of a much-needed computer-aided design laboratory. While first-year costs have been taken care of, it will be up to the college itself to find maintenance funds in the future. At this point in time, the dean notes: "We honestly don't know where the funds will be found."

This same school has negotiated with another manufacturer for a sophisticated computer system which will supplement a currently inadequate computer in the college's largest department—Electrical and Computer Engineering. Says the dean, "Unless we are able to get assistance from the manufacturer or another source to pay the cost of maintaining this system, it may be necessary for us to turn down the grant altogether."

The chairman of an engineering department at an Illinois school observes that he and "most other educators" with whom he is familiar "no longer accept donations" from industry if the equipment is not new. "Costs in terms of both time required to install and maintain it, as well as the costs of parts, etc., are prohibitive compared with the higher reliability and ease of maintenance of newer equipment."

An engineering college in Louisiana recently received grants from two computer manufacturers "which are currently in danger of being declined by the University because of insufficient funds to maintain the equipment. Refusal of these items would constitute a major loss to the College." The dean notes further that ABET, the accrediting agency for the engineering schools, emphasizes the "necessity of implementing computers directly into the educational process, thus this (maintenance) problem impacts directly on the educational function."

In the case of computers, it's particularly important to understand that proper maintenance includes more than the hardware. A typical maintenance contract on computer software provides modifications and updates as they develop. If a school does not pay this charge, it is left with out-of-date software. This pose a significant problem if the computer is required to communicate with another machine that does have the updates.

We hope to address the problems associated with gifts from industry both by further educating our donors of the criticality of maintenance funds and by encouraging tax breaks for companies which donate services. Both industry and government must understand, in the words of a Louisiana dean of engineering, "that an offer of equipment with maintenance strings attached may well be a hollow offer" for many schools.

Grants are another vital channel through which we receive equipment. In the case of research grants where equipment is purchased and dedicated to one project, maintenance costs are sometimes taken care of. Occasionally grants allow for a certain amount of care of equipment. However, for equipment that is used for more than a single project or is instructional in nature, little or no accommodation for wear-and-tear exists. As I illustrated above, this can pose a tremendously expensive problem for the schools.

The equipment grants authorized under Title VII of the Higher Education Act appear not to address directly the costs of maintaining purchased or leased equipment chosen by a recipient. We would suggest a simple change to recognize maintenance as an integral part of a total equipment "package" under this title. By allowing 10 to 15 percent of a given grant to be used to arrange for maintenance of the equipment purchased or leased, you will give schools much-needed flexibility in caring for their equipment. If a school chooses, it could still use 100 percent of the grant for purchase or lease, pursuing other methods which it may already have in place for maintenance. The 10 to 15 percent reserve option simply allows the school itself to ensure that the life and usefulness of the equipment is the longest and best possible. Because the change requires no new funds and yet will have the effect of "getting the most bang for the buck" out of our equipment, I think that such an option makes good economical sense in a time of tight budgets all around.

On a slightly different note, it might be useful at the same time to consider allowing that same 10 to 15 percent reserve to be used to upgrade equipment a year or two after its lease or purchase. An analogy would be the purchase of a newer model car, trading in the old and contributing a certain amount of cash toward the new. Such upgrading in the laboratory helps overcome the quick obsolescence of rapidly changing equipment. Certainly no one is more aware of the rapid pace of such technological change than our engineering schools. Keeping up with current engineering practice in industry poses a special challenge. One dean of engineering observes that "the big factor in our equipment problem is the revolution caused by the microprocessor in the practice and teaching of engineers. If we don't have the computer equipment, we are really not teaching engineering anymore." Giving schools the flexibility to "trade up" equipment would again be economical, as well as of clear benefit to the quality of the education and research environment.

I am certain that you understand the obviously critical need for regular maintenance of the equipment in our nation's academic engineering laboratories. This issue is of great importance to the country's engineering schools, evidenced vividly by a brand-new criterion of ABET, the accrediting agency for our schools, which requires that "each curriculum shall have a carefully constructed and functioning plan for the continued replacement, modernization, maintenance, and support of laboratory equipment and related facilities." This new criterion will go into effect next year. Keeping our academic engineering laboratories in excellent shape is imperative if we are to teach tomorrow's innovators and conduct the research that becomes tomorrow's technology. Unless our equipment is kept in optimal working order, students will be shortchanged and everyone will later pay a high cost in talent untrained, research not begun, and ideas never realized.

I believe that reserving a certain percentage of equipment grants under Title VII for maintenance arrangements is absolutely essential. Indeed, as I mentioned at the outset of this testimony, it is as vital an issue to America's engineering colleges as is the very acquisition of such equipment.

I cannot urge this committee too strongly to join me in addressing this problem. It is one that will not go away. Rather, it is worsening as we speak.

Thank you. I would be delighted to try to answer any questions which you may wish to pose.

Mr. FORD. Mr. Atkins.

Mr. ATKINS. I would like to introduce Mr. Frank Mills, the only member of the Massachusetts delegation who didn't either graduate from Boston College, high school, or Boston College Law School. I feel a particular need to make a flowery introduction for Frank Mills.

He will be talking about specific problems that Boston College has faced in borrowing, and it is particularly relevant in light of the testimony we just heard because Boston College is within that group of 10 percent of institutions that have been able to borrow privately.

Massachusetts has a State mechanism for tax-exempt financing, and Boston College has quite a significant endowment, including the endowment for the O'Neill Library, but given that, they have had enormous difficulty in meeting their borrowing needs, and it is an indication of the need for us to come up with some kind of new mechanism to encourage borrowing by higher education.

Mr. FORD. You should feel ill at ease. Another very successful politician out of the Boston area served on this committee many, many years ago, named Jack Kennedy, and he didn't go to Boston College, either.

Mr. ATKINS. He contributed a big chunk to their endowment.

STATEMENT OF FRANCIS F. MILLS, DIRECTOR OF FINANCING RESOURCES, BOSTON COLLEGE

Mr. MILLS. Mr. Chairman, President Kennedy also contributed more than just the endowment.

I am very grateful for the second time in our history, that we have a member from Massachusetts on this very important committee. Someone asked me up in Lowell, how many students, college students are there in Massachusetts.

I looked that up. At the minute, there are some 356,000 college students in Massachusetts, and most of them attend private, independent schools, one of which I attended.

We have not done in recent years a great deal of building at Boston College. Between 1972 and now, we have really expanded. In 1972, for example, we housed about 3,000 dormitory students.

We now house about 5,400, an increase of some 81 percent. Our overall undergraduate enrollment has risen from 1972 to now, from 7,300 to 8,600, and a larger number than ever before are young ladies, roughly 55 percent.

In the same period of time, our gross fiscal investment has risen from $51 to $291 million, and thanks to the Congress, we did receive a substantial grant to complete a very significant library which we dedicated just about a year ago, but in aggregate, additional debt provided some 56 percent of our physical plant growth, and our present debt now outstanding is some $100 million.

Our new plant investments didn't include just dormitories, just the library. We had major renovation of the predecessor library built back in the late 1920's. We have had to renovate substantially laboratories, faculty offices, classrooms, cafeterias, and we are constructing our second parking garage now.

We constructed a campus theater, some athletic facilities, and the name Flutie is significant. We have had to replace major boilers and acquired a great deal of academic equipment including computers, and equipment like just mentioned by my colleague, they go out of date in 2 or 3 years, and we are constantly looking for ways to finance that.

When we borrow, there have been in many cases specific mortgages on specific buildings, and we have had to pledge the liens, revenues from dormitories, we have to pledge that to guarantee those loans.

In other situations, we have had to pledge portions of our endowment funds to secure loans. All debt instruments contain some kinds of loan restrictions. Someone asked me the other day, when do you know that you have reached your loan limit, and I said, when you can't borrow any, that is it.

We are faced with additional funding needs for additional dormitories, more academic buildings, and probably additional parking areas, a student union and some faculty housing. We have none now.

Our present debt service, which is borne by our students in their tuition and dorm charges, is in excess today of $7 million a year.

I am intrigued by the comments Mr. Fox made. I have not read his prepared statement, but I intend to. I am intrigued by what he talked about, and I am not sure that it would apply to our specific situation, but it might.

One of the things I would like to talk to today is the college housing program, which your committee for the first time is reviewing for reauthorization purposes, and I am happy about that.

You probably—I am sure you know that the program was established back in 1950, with a substantial funding, most of which went for loans to colleges, and some of which went to interest subsidy grants.

At the moment roughly, there is about $2.7 billion of principal balance of those loans held by the Government, Department of Education now.

The Congress in the last 2 or 3 years has made available some $40 million per year for new loans. Applications for those loans, for example, in 1984, were some $368 million.

The magnitude in my opinion is only a fraction of what the real need may be out there, because within the regulations, no campus could borrow more than $3.5 million, so when we speak about a total, a magnitude of $368 million, you think of $3.5 million per college, you have a lot of applications, but no available money to make loans with.

The current regulations also make it very difficult even to make an application, and I would like to suggest that instead of using $40 million a year, which is a portion only, Mr. Chairman, of the principal being repaid to the Government from the extant loans, principal and interest coming back, instead of making new loans with $40 million and limiting to a small number of borrowing colleges, that that same money or a large portion of it be used for interest subsidy grant purposes.

I have calculated that if the Government, if the Federal Government, if you could authorize and the Appropriations Committee would utilize $40 million a year for interest subsidy grants, the Nation could immediately utilize some $500 million of construction right now, and get some of these major problems resolved.

I speak of $40 million, not the total principal being returned on college housing loans, and I know, however, down the road, there is some $2.7 billion which will be coming back, but I am suggesting that there be some consideration given to blending the College Housing Loan Program with the Higher Education Facilities Loan Program, which has little or no money and utilize some of that principal repayment also either for new loans for educational facilities or for interest subsidy grants for educational facilities, and that would go a long way toward solving, when we speak about $40 million of need, some of that thinking might be helpful as you review President Fox's judgments, concepts on the student loan marketing financing plan he talked about.

I don't know what it contains, but I do know that—I know there is a big need out there.

We have need. We are only one, and I think that the interest subsidy grant possibility, potential is better. I don't think the Government has to be in the business of lending money. I am not so sure all our local banks would like to make loans to colleges, either.

I am grateful for your continued assistance to our educational system, and most particularly for what has been of benefit to Boston College.

Thank you, Mr. Chairman.

[The prepared statement of Francis F. Mills follows:]

PREPARED STATEMENT OF FRANCIS F. MILLS, DIRECTOR OF FINANCING RESOURCES, BOSTON COLLEGE

Mr. Chairman and members of the Subcommittee on Postsecondary Education, my name is Francis F. Mills. I am the Director of Financing Resources at Boston College in Chestnut Hill, Massachusetts. Boston College is a private, non-profit, coeducational institution of higher education. I am substituting for our President, Father Monan. We are one of the oldest Jesuit founded universities in the United States, with full and part-time enrollments of over 14,000. It is the fourth largest private higher education facility in New England. Its academic community is open to men and women of any and every background.

Boston College's charter was granted in 1863. For many years we were located in the heart of the City of Boston. Shortly before World War I, the college purchased property in Chestnut Hill in the City of Newton, a suburb six miles from downtown Boston. Since that time we have grown substantially and now have 80 buildings on approximately 160 acres of land.

Our present buildings include dormitory accommodations for over 5,300 students, library facilities with over one million volumes, a campus theater, a fine arts center, classroom facilities, dining, recreational and athletic facilities.

Our physical growth intensified during the period between 1972 and the present. One of the significant reasons is the increase in the number of resident students. In 1972 we housed 2,974, we now house about 5,400—an increase of more than 81 percent. We are now about 63% residential, when in 1972 we were 41 percent. Our overall undergraduate enrollment in the same period rose from 7,300 to 8,600—an increase of almost 18 percent.

In the same period, our gross physical plant investment has risen from $51 million to $209 million, and our long term debt from $12 million to $100 million. Additional debt provided 56 percent of our physical plant growth.

Our new physical plant investments included: new construction and renovation of dormitories; construction of a new library and major renovation of its predecessor; renovation of academic buildings including classrooms; laboratories and faculty offices; new construction and renovations of cafeterias and other dining facilities; construction of two parking garages; construction of a campus theater; construction and renovation of athletic and recreational facilities; boiler replacements, and acquisition and replacement of academic equipment—including computers.

Some of our new debt instruments required that we pledge as collateral various buildings and specific revenues to be derived from their use. Other debt is secured by a portion of our endowment funds.

We except to have future need for funding for additional new construction of student dormitories, academic buildings, parking areas, a student union facility and faculty housing.

We also expect to make renovations and necessary improvements to many of our existing buildings.

Our present debt service is in excess of $7 million a year which has an impact of approximately $870 of tuition cost per year on our undergraduate students. We suggest that authorization contained in the present law for all academic facilities be extended and, to the degree possible, increased.

We have noted that the then Assistant Secretary for Postsecondary Education in the appearance before the House Subcommittee on Appropriations on May 1, 1985, referred to a probable nation-wide need for academic facilities renovation, including instrumentation and equipment, of approximately $40 billion. We recognize that this need cannot possibly be satisfied and paid for in a short period of time.

We also know that in recent years, the College Housing Program, providing annual loans aggregating some $40 million, received applications for new construction loans from colleges all over the country in excess of $300 million per application year. In our opinion, this amount is a modest fraction of the real need because the Department of Education in its regulations limited the loan amount for a single campus to $3.5 million.

In his testimony in May, the Assistant Secretary also indicated that the College Housing Program presently holds about $2.7 billion of outstanding loans made to colleges over a period of several years, and that the Department of Education plans to pay back to the Treasury the total future collections of principal and interest on these loans.

This appears to be the first time that your committee will be considering reauthorization of the College Housing Program which, as you know, began with the Housing Act of 1950. In June 1975, to apply for fiscal 1976, the Congress transferred $964 million of available College Housing Budget Authorization to the Community Development Grants Program. That action was intended to transfer budget authority to a program of then higher priority, House Report 94-313.

At inception, this program was intended to be a revolving fund with principal and interest collections to be applied to new loans.

For some years, a large part of the College Housing Program supported borrowing institutions through interest subsidy grants rather than direct loans. We believe that a reinstitution of this program would accomplish more for applicant colleges, and be a much more efficient way to utilize Federal support, than to have the department continue to loan an amount annually which represents only a modest fraction of the apparent need.

One of the important ways that this can be accomplished is through the Interest Subsidy Grant Program. I have calculated that, if the $40 million which has been made available for loans in the last few years were to be used instead for interest subsidy grants, almost $500 million of new construction could be accomplished. This certainly would go a long way toward relieving the condition which apparently exists.

In addition, I would like to point out that there might be an opportunity with the College Housing Program to give it and the Title VII Facilities Programs new life. With collections being received into the future on the outstanding $2.7 billion of College Housing loans, perhaps these funds could be utilized for interest subsidy grants on both programs and for direct grants as well.

The cost of academic facilities today can range anywhere from $120 per square foot upwards. For a University to maintain itself as a quality institution, it must upgrade its physical plant facilities on a regular basis, and at times must replace or add facilities. An example would be—an institution which has need for a new Science Lab which it must provide to make certain that its Science Programs are of the quality that will properly train its students. Borrowing up to now for such a facility, with the imposition of restrictions by lenders and the possible need for loans or pledges, has still been possible for us through the help of a Facilities Loan Authority (existing in our state) which permits tax-exempt interest rates, thus saving a great deal for our students in debt service costs. With the possible limitation to be placed on such borrowing under the new tax proposals, and with limitations on our own resources and the difficulty of obtaining grants, a greater burden will fall on universities and students to support such construction or renovation.

We believe that our universities are a national resource, and as a national resource the Federal Government must assume a significant role in assisting universities in this area. Over the last years, the programs authorized by your committee have not been implemented, and the implementation of the College Housing Program with the establishment of maxima for each college borrower and minimal funding of $40 million annually, has seriously failed to come even close to the apparent national needs. We, therefore, urge that the committee not only authorize the continuance of the College Housing Program, but to make every effort with the collections to expand the funding available for it.

I am grateful for the opportunity to be here today to express the views of Boston College and to emphasize my views with a quote from the late President Johnson when he first presented to the Congress his proposals for the Higher Education Act in 1965:

"Nothing matters more to the future of our country: not our military preparedness—for armed might is worthless if we lack the brain power to build a world of peace; not our productive economy—for we cannot sustain growth without trained manpower; not our democratic system of government—for freedom is fragile if citizens are ignorant."

Your continued assistance is vital to our educational system and to Boston College.

Mr. **Ford**. Dr. Aery, you are next.

STATEMENT OF DR. SHAILA AERY, COMMISSIONER, COORDINATING BOARD FOR HIGHER EDUCATION, STATE OF MISSOURI, AND CHAIR, FEDERAL RELATIONS COMMITTEE, STATE HIGHER EDUCATION EXECUTIVE OFFICERS

Dr. AERY. Mr. Chairman, I appreciate being here today, members.

I am commissioner of higher education of the Coordinating Board for Higher Education in Missouri, and I am appearing before you today as chair of the Federal Relations Committee of the State Higher Education Executive Officers.

The members of SHEEO are the chief executives of the boards and commissions responsible for statewide governance and coordination of higher education in 49 States, the District of Columbia, and Puerto Rico.

Our members are responsible for ensuring that the citizens of their States have access to quality education, both public and independent, and that their needs, as well as those of the State, are appropriately served by an efficient and effective coordinated system of colleges and universities.

The States are faced with no greater financial problem than the modernization and improvement of institutional facilities and equipment. As a result of the tremendous building boom of the fifties and sixties, and the economic distress of the late seventies and early eighties, the States are now faced with an extraordinary number of academic buildings that have reached or are on the verge of reaching the age when they need major repair and renovation.

Missouri is no exception to this phenomenon. I know Mr. Coleman for one is well aware of the plight of many of our institutions in this regard, and the limited ability of our State to respond to their very legitimate needs.

In Missouri, we are using 1 percent of replacement value for maintenance and repair requests, only a third of what private industry deems prudent. Our capital needs have also expanded. While in the past, most of the demand for sophisticated, and costly, scientific and other equipment was for research, we are now finding that undergraduate programs in a variety of fields are also in need of support at a level that the States cannot adequately provide.

The combination of State financial constraints over the past decade and the substantial withdrawal of the Federal Government from this field has left colleges and universities with billions of dollars in pent-up demand for new equipment and the renovation, rehabilitation, and construction of facilities, especially for those used in the sciences.

Just keeping the buildings of Missouri's public 4-year institutions from further deterioration would require annual appropriations of $20 million. We also calculate that in Missouri replacement of obsolete scientific equipment in our public universities will require an investment of $39.8 million this year alone.

At a time when the international competitiveness of the United States, and indeed perhaps its national security, are increasingly dependent upon a strong instructional and research establishment, this facilities and equipment deficit takes on enormous importance.

Because of the great costs involved, and the need to obtain the most value from the available resources, we join with the American Council on Education in urging this committee to give first priority to the renovation of existing facilities rather than new capital construction.

We also recognize the urgent need for support for the acquisition of new research and instructional equipment. To this end, we support proposals to better link title VII with support for graduate education, especially in the sciences.

Studies sponsored by the National Science Foundation and others have documented the pressing need to upgrade and replace obsolete equipment in such fields as engineering, computer science, and the physical sciences.

Federal assistance is imperative to enable our colleges and universities to continue to train our Nation's engineers, scientists, and other key workers, and to continue to serve as the center of innovation and scientific discovery.

This unquestionable need for Federal involvement leads me to the central theme of my testimony today. There is a long and honorable tradition of direct relationships between the Federal Government and institutions of higher education.

In most cases, this direct relationship has served the Nation, and I applaud the Congress for its responsiveness to a variety of institutional needs.

But in some cases, the direct Federal-institution relationship has not been so successful in serving the public interest, particularly where the Federal Government has gotten into the business of financing the construction or major renovation of capital facilities.

The key to the effective use of public funds, regardless of whether they are State or Federal in origin, is coordination between different levels of government. We join with the National Governors' Association in urging the Congress, as it considers reauthorization of the Higher Education Act, to ensure the full involvement of the States consistent with the dictates of the historical Federal-State partnership in education.

SHEEO believes that NGA's policy statement on higher education, entitled, "Coordinating the State-Federal-Institutional Partnership," represents an excellent summary of policies which both levels of government should follow:

> It is important that there be coordination between efforts by different levels of government that are aimed at similar policy concerns. Without such coordination, small Federal programs may have little or no impact.
>
> In addition, a well-intentioned Federal effort may have a negative or disruptive effect if it runs counter to delicately designed State strategies.
>
> Therefore, the National Governors' Association urges the Congress to design Federal programs so that they result in an effective State-Federal-institutional partnership in both the funding and delivery of student and institutional assistance.

The preservation of this partnership is clearly paramount in dealing with capital facilities. Indeed, there is not another area in which State policies are more delicately crafted.

In materials submitted to Mr. Ford and Mr. Coleman in April 1985, SHEEO recommended that grants made under title VII which are not allocated by the States themselves under the present part A be subject to the review and approval of the designated State higher education agency, or such other entity as the Governor may designate.

We make this recommendation for several very significant reasons. Despite the importance of Federal involvement in this area, capital financing of higher education will unquestionably remain primarily a State responsibility, either through direct appropriations or through the use of State borrowing capacity and access to tax-exempt financing.

Most States have well-developed priority lists for construction, renovation and other major capital improvements at their publicly supported institutions, and an increasing number are assisting in capital financing for the independent sector as well.

Furthermore, the Federal Government must remain keenly sensitive to the reality that not only does new construction or major renovation inevitably carry with it considerable operational costs, but it may significantly affect institutional missions.

Increasingly, these are being defined by State coordinating or governing board action, usually as a direct result of a legislative mandate or direction from the Governor.

For the Federal Government to finance capital projects without regard to State level consequences is shortsighted. It also clearly violates the most basic principles of our Federal system.

SHEEO questions the distinction between the capital financing of facilities for undergraduate and graduate use in terms of the relevance of State-level review, as well as the allocation of funds.

Such designations are almost always arbitrary, given the nature of the relationship between graduate and undergraduate education. With limited exceptions, SHEEO believes that all facilities financing should be channeled though the States.

The single exception to this rule should be projects of clear national significance, such as the development of national laboratories. While the Congress may wish to preserve the part A and part B distinction for purposes of appropriations, we strongly urge that State review be incorporated in part B allocations.

Even where the determination of worthy projects is carried out by the Secretary, as is the case in the present part B, SHEEO believes that conformity with existing State plans for higher education is a necessary criterion for the award of a grant.

To assure compliance with this requirement, SHEEO recommends that the Secretary be required to request that the State higher education agency within which the institution is located validate the statistical and programmatic data upon which the application for support is based, certify whether or not the application is consistent with applicable State plans for higher education, including State plans for the elimination of vestiges of racial duality, and provide the Secretary with any other objective recommendations the State thinks appropriate in the context of the efficient and effective use of Federal resources.

I must also mention the deep concern among State officials of the action of this Congress in appropriating title VII funds without regard to the State apportionment procedures set forth in part A.

While we recognize that the very limited fund availability suggested a national competition, we urge that the Congress return to the principle of partnership embodied in part A of title VII.

The issue of Federal financing of scientific facilities and equipment raises a related issue over which my colleagues and I are deeply concerned. There is disturbing evidence of a recent trend in the Congress to designate individual institutions as the recipients of major research projects which carry with them the construction of substantial capital facilities.

While we understand that such action is the inevitable outcome of a lack of regularized Federal financing of such projects, we urge the Congress, and our institutions whose lobbying has at times been so successful, to return to a competitive process involving peer review.

We are also concerned with a growing trend to concentrate support for institutional facilities and research and instructional equipment among a few prestigious universities. The greatest needs are not necessarily those of the "premier" institutions, and we urge this Congress to look closely at the link between adequate facilities and scientific equipment and the ability of an institution to maintain or develop a quality instructional program.

We are concerned that apportioning funds without regard to ensuring equity and diversity, both geographic and otherwise, will ultimately create an even more stratified set of institutions than is presently the case: Those which routinely receive Federal largesse and those which are effectively excluded from such participation.

If we are to ensure the fullest appropriate development of all of our institutions, we must also ensure reasonable access to available funding.

While there are certainly Federal programs that by the nature of the work to be performed support only the most sophisticated research institutions, we believe that for the most part Federal support should be distributed in such fashion as to assure reasonable access to the broadest range of qualified institutions, ensuring not only quality but also diversity and equity.

The delicate nature of the Federal-State relationship is also apparent in another aspect of the facilities and capital equipment equation: Continued access to tax-favored financing and incentives for the infusion of private capital.

We were all deeply concerned when, during the last Congress, there was consideration of a measure to sharply restrict the use of the States' exempt financing capacity to support capital construction at colleges and universities.

Fortunately, this limitation was ultimately withdrawn.

SHEEO hopes that the Congress will continue to support the ability of the States to raise money for the financing of institutional facilities. Nor should the Congress look with favor on proposals that would discourage private investment in institutional facilities.

We are seeing quite a number of very creative projects that bring private capital into our campuses. These ventures preserve State and Federal tax dollars for other purposes where private funds are not available, and they should be affirmatively encouraged.

The recent study on financing and managing university research equipment, sponsored by the Association of American Universities and Land Grant Colleges and the Council on Government Relations, thoughtfully examines several aspects of this issue.

Tax policy which renders such relationship difficult or even impossible is, in our view, shortsighted and against the public interest.

I commend to the attention of the committee a recent SHEEO publication entitled "Creative Financing for Higher Education Facilities and Equipment," which explores the various ways States and institutions can support capital projects.

We would be pleased to provide the committee with a copy for inclusion in the record of this hearing. We have every confidence that the members of this committee will represent the interests of higher education, the States and their citizens as debate on tax reform moves forward.

Sallie Mae, that is a very interesting idea, and being from Missouri, I am a little "show-me," so I will have to sit back a little while.

In Missouri, we have one public institution who by law may borrow, but it would be of assistance in the States with the private institutions.

Finally, I would like to thank you on behalf of SHEEO to present our views to you.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Shaila Aery follows:]

PREPARED STATEMENT OF DR. SHAILA AERY, COMMISSIONER, COORDINATING BOARD FOR HIGHER EDUCATION, STATE OF MISSOURI

Mr. Chairman, Mr. Coleman, members of the committee, my name is Shaila Aery. I am Commissioner of Higher Education of the Coordinating Board for Higher Education in Missouri, and I am appearing before you today as Chair of the Federal Relations Committee of the State Higher Education Executive Officers. The members of SHEEO are the chief executives of the boards and commissions responsible for statewide governance and coordination of higher education in 49 states, the District of Columbia, and Puerto Rico. Our members are responsible for ensuring that the citizens of their states have access to quality education, both public and independent, and that their needs, as well as those of the state, are appropriately served by an efficient and effective coordinated system of colleges and universities.

The states are faced with no greater financial problem than the modernization and improvement of institutional facilities and equipment. As a result of the tremendous building boom of the fifties and sixties, and the economic distress of the late seventies and early eighties, the states are now faced with an extraordinary number of academic buildings that have reached or are on the verge of reaching the age when they need major repair and renovation. Missouri is no exception to this phenomenon. I know Mr. Coleman for one is well aware of the plight of many of our institutions in this regard, and the limited ability of our state to respond to their very legitimate needs. In Missouri we are using one percent of replacement value for maintenance and repair requests, only a third of what private industry deems prudent. Our capital needs have also expanded: While in the past most of the demand for sophisticated—and costly—scientific and other equipment was for research, we are now finding that undergraduate programs in a variety of fields are also in need of support at a level that the states cannot adequately provide. The combination of state financial constraints over the past decade and the substantial withdrawal of the federal government from this field has left colleges and universities with billions of dollars in pent up demand for new equipment and the renovation, rehabilitation and construction of facilities, especially for those used in the sciences. Just keeping the buildings of Missouri's public 4-year institutions from further deterioration would require annual appropriations of $20-million. We also calculate that in Missouri replacement of obsolete scientific equipment in our public universities will require an investment of $39.8-million this year alone. At a time when the international competitiveness of the United States, and indeed perhaps its national security, are increasingly dependent upon a strong instructional and research establishment, this facilities and equipment deficit takes on enormous importance.

Because of the great costs involved, and the need to obtain the most value from the available resources, we join with the American Council on Education in urging this committee to give first priority to the renovation of existing facilities rather than new capital construction. We also recognize the urgent need for support for the acquisition of new research and instructional equipment. To this end, we support proposals to better link Title VII with support for graduate education, especially in the sciences. Studies sponsored by the National Science Foundation and others have documented the pressing need to upgrade and replace obsolete equipment in such fields as engineering, computer science and the physical sciences. Federal assistance is imperative to enable our colleges and universities to continue to train our nation's engineers, scientists and other key workers, and to continue to serve as the center of innovation and scientific discovery.

This unquestionable need for federal involvement leads me to the central theme of my testimony today. There is a long and honorable tradition of direct relationships between the federal government and institutions of higher education. In most cases, this direct relationship has served the nation and the citizens of the states well, and my colleagues and I applaud the Congress for its responsiveness to a variety of institutional needs. But in some cases the direct federal-institution relationship has not been so successful in serving the public interest, particularly where the federal government has gotten into the business of financing the construction or major renovation of capital facilities. The key to the effective use of public funds, regardless of whether they are state or federal in origin, is coordination between different levels of government. We join with the National Governors' Association in urging the Congress, as it considers reauthorization of the Higher Education Act, to ensure the full involvement of the states consistent with the dictates of the historical federal-state partnership in education. SHEEO believes that NGA's policy statement on higher education, entitled "Coordinating the State-Federal-Institutional Partnership," represents an excellent summary of policies which both levels of government should follow:

"It is important *** that there be coordination between efforts by different levels of government that are aimed at similar policy concerns. Without such coordination, policy concerns. Without such coordination, small federal programs may have little or no impact. In addition, a well-intentioned federal effort may have a negative or disruptive effect if it runs counter to delicately designed state strategies. Therefore, the National Governors' Association urges the Congress to design federal programs so that they result in an effective state-federal-institutional partnership in both the funding and delivery of student and institutional assistance."

The preservation of this partnership is clearly paramount in dealing with capital facilities. Indeed, there is not another area in which state policies are more "delicately" crafted. In materials submitted to Mr. Ford and Mr. Coleman in April, 1985, SHEEO recommended that grants made under Title VII which are not allocated by the States themselves under the present Part A be subject to the review and approval of the designated state higher education agency (or such other entity as the Governor may designate). We make this recommendation for several very significant reasons. Despite the importance of federal involvement in this area, capital financing of higher education will unquestionably remain primarily a state responsibility, either through direct appropriations or through the use of state borrowing capacity and access to tax exempt financing. Most states have well-developed priority lists for construction, renovation, and other major capital improvements at their publicly supported institutions, and in increasing number are assisting in capital financing for the independent sector as well. Furthermore, the federal government must remain keenly sensitive to the reality that not only does new construction or major renovation inevitably carry with it considerable operational costs but it may significantly affect institutional missions. Increasingly, these are being defined by state coordinating or governing board action, usually as a direct result of a legislative mandate or direction from the Governor. For the federal government to finance capital projects without regard to state-level consequences is short-sighted. It also clearly violates the most basic principles of our federal system.

SHEEO questions the distinction between the capital financing of facilities for undergraduate and graduate use in terms of the relevance of state-level review, as well as the allocation of funds. Such designations are almost always arbitrary, given the nature of the relationship between graduate and undergraduate education. With limited exceptions, SHEEO believes that all facilities financing should be channelled through the States. The single exception to this rule should be projects of clear national significance, such as the development of National Laboratories. While the Congress may wish to preserve the Part A and Part B distinction for purposes of appropriations, we strongly urge that State review be incorporated in Part B allocations. Even where the determination of worthy projects is carried out by the Secretary, as is the case in the present Part B, SHEEO believes that conformity with existing state plans for higher education is a necessary criterion for the award of a grant. To assure compliance with this requirement, SHEEO recommends that the Secretary be required to request that the State higher education agency within which the institution is located validate the statistical and programmatic data upon which the application for support is based, certify whether or not the application is consistent with applicable state plans for higher education, including state plans for the elimination of vestiges of racial duality, and provide the Secretary with any other objective recommendations the State thinks appropriate in the context of the efficient and effective use of Federal resources.

I must also mention the deep concern among state officials of the action of this Congress in appropriating Title VII funds without regard to the state apportionment procedures set forth in Part A. While we recognize that the very limited fund availability suggested a national competition, we urge that the Congress return to the principle of partnership embodied in Part A of Title VII.

The issue of federal financing of scientific facilities and equipment raises a related issue over which my colleagues and I are deeply concerned. There is disturbing evidence of a recent trend in the Congress to designate individual institutions as the recipients of major research projects which carry with them the construction of substantial capital facilities. While we understand that such action is the inevitable outcome of a lack of regularized federal financing of such projects, we urge the Congress—and our institutions whose lobbying has at times been so successful—to return to a competitive process involving peer review.

We are also concerned with a growing trend to concentrate support for institutional facilities and research and instructional equipment among a few prestigious universities. The greatest needs are not necessarily those of the "premier" institutions, and we urge this Congress to look closely at the link between adequate facilities and scientific equipment and the ability of an institution to maintain or develop a quality instructional program. We are concerned that apportioning funds without regard to ensuring equity and diversity, both geographic and otherwise, will ultimately create an even more stratified set of institutions than is presently the case: those which routinely receive federal largesse and those which are effectively excluded from such participation. If we are to ensure the fullest appropriate development of all of our institutions we must also ensure reasonable access to available funding. While there are certainly federal programs that by the nature of the work to be performed support only the most sophisticated research institutions, we believe that for the most past federal support should be distributed in such fashion as to assure reasonable access to the broadest range of qualified institutions, ensuring not only quality but also diversity and equity.

The delicate nature of the federal-state relationship is also apparent in another aspect of the facilities and capital equipment equation: continued access to tax-favored financing and incentives for the infusion of private capital. We were all deeply concerned when, during the last Congress, there was consideration of a measure to sharply restrict the use of the states' exempt financing capacity to support capital construction at colleges and universities. Fortunately, this limitation was ultimately withdrawn. SHEEO hopes that the Congress will continue to support the ability of the states to raise money for the financing of institutional facilities. Nor should the Congress look with favor on proposals that would discourage private investment in institutional facilities. We are seeing quite a number of very creative projects that bring private capital into our campuses. These ventures preserve state—and federal—tax dollars for other purposes where private funds are not available, and they should be affirmatively encouraged. The recent study on Financing and Managing University Research Equipment, sponsored by the Association of American Universities, the National Association of State Universities and Land-Grant Colleges and the Council on Government Relations, thoughtfully examines several aspects of this issue. Tax policy which renders such relationships difficult or even impossible is, in our view, short-sighted and against the public interest. I commend to the attention of the Committee a recent SHEEO publication entitled "Creative Financing for Higher Education Facilities and Equipment" which explores the various ways states and institutions can support capital projects. We would be pleased to provide the Committee with a copy for inclusion in the record of this Hearing. We have every confidence that the members of this Committee will represent the interests of higher education, the states and their citizens as debate on tax reform moves forward.

On behalf of SHEEO, I thank you for this opportunity to present our views.

Mr. **Ford**. Thank you.

Are your State universities operated by a single board or independent boards?

Dr. **Aery**. They have one constitutional board that is a governing board.

I ring the bell on——

Mr. **Ford**. Maybe we are a little bit more provincial in Michigan, but the Governor took a big chance when he appointed a commission to look at higher education in Michigan, and I met with them, and others met with them and cautioned them, "For God's sake, don't say anything in your recommendations, that you are telling the schools that they ought to close down departments or this or that because some other school does it."

We know full well that the competition is not always good. The first land-grant college in the United States was Michigan State, one of the largest in the country, founded as an agriculture school.

There are more students in the school of forestry in the University of Michigan than there are at Michigan State, and I wondered how come we had two schools of forestry at that time. They never could get a medical school, so now they have two medical schools, and they have not got a law school yet, but they will.

The point I get to is when you suggest that on an approval of a facilities grant, they go through a State clearance, I wonder the extent to which we could require that without having the independent boards say, well, we know what is best for this institution, and we don't want anybody in the State capitol telling us.

You are suggesting merely that they serve in the role of validating the information upon which the assumptions are made, and the representations are made for the purpose of the grant, not the wisdom of the grant.

Dr. **Aery**. That is correct, not the wisdom, other than pointing out perhaps, if that were a law school building for Michigan State, if the State believes they need another public law school, that thing you can make comment on, but not validating.

One of the things, and I know, being in coordination is one of the most popular things in the world, I think why coordinating boards are gaining more and more popularity, if you will, with general assemblies and Governors, across this country, is that particularly when you look at division of resources, the total sum of all the institutions in any State, Michigan or Missouri or Oklahoma or anywhere, do not equal always the public interest.

With limited resources, there have to be some decisions about those resources, and that is where the States are worried about getting buildings that they will need to operate and maintain, getting a third law school when our first two are not filled.

I would love to send Mr. Mills—I could send him a dozen dormitories that we have overbuilt, and I don't think that Missouri is that unusual, but in some States, such as in Michigan, you have a division of higher education, yes, this is the role and send it back.

Some States, perhaps you couldn't even do that.

Mr. **Ford**. Thank you very much.

The expert at finding the money is here, and I appreciate reference to the geographic locations of grants that come through here.

One of the first things I learned on this committee is that Massachusetts is the most overrepresented State in this Congress in terms of clout, and they know how to use it.

Mr. **Atkins**. I would caution you, Mr. Chairman, there is someone representing Northeastern University sitting in the back as well.

Mr. **Ford**. Well, they haven't done too badly by us, either.

Mr. **Atkins**. They hope to do better, at least for equity with Boston College.

Mr. **Mills**. We wish them well.

Mr. **Ford**. Mr. Coleman.

Mr. **Coleman**. Well, I apologize for not being here to hear your testimony. I flipped through it and got the highlights. You were all here and heard the discussion earlier about this new creation that is being suggested. How would that impact your State institutions from your standpoint?

Would this be something that you are favorably disposed toward or not, or have any comment or position?

Mr. **Mills**. The presentation by Mr. Fox, Mr. Coleman? I have not had a chance to read it. I know Mr. Fox. It sounded like we would be interested in studying it some more. It could do a lot for us, but I am not sure.

Mr. **Coleman**. Well, we did our share, Mr. Chairman, in north Missouri in showing cooperation between State institutions. I am not sure the rest of the State did very well. Is that right?

Dr. **Aery**. Certainly, you were the first.

Mr. **Coleman**. I thought maybe the only. Thank you for coming.

Mr. **Ford**. Mr. Atkins.

Mr. **Atkins**. I would just like to ask Dr. Aery one question. It would appear, and certainly your experience in Missouri bears this out, that there are a number of States that significantly overbuilt in higher education. Moreover, there are particular problems in that certain departments were overbuild, and the new student demand is quite different than was projected when the facilities were built 5 and 10 years ago.

In the process of distributing whatever support the Federal Government has for facilities and for equipment, are there some specific ways that you could recommend that we could create incentives for some of the consolidation that needs to take place?

One of the things that I found from my experience in the State Legislature in Massachusetts is that it is much easier to build something than it is to merge it or close it down.

I am sure you have had similar experiences, and if you have, it is much easier to do that, if you have a carrot rather than merely a stick.

In some ways, we could use whatever limited Federal facilities support we have as a carrot for State higher education executive officers to do what I think in most cases they feel is necessary in consolidations.

Dr. **Aery**. My point earlier about the moneys being spent in a way that is not contradictory to the State's master plan, how they see institutions going, and not been spent for buildings, for instance, that are not appropriate to the particular mission or future of an institution.

Mr. **Atkins**. I am suggesting we go a step beyond that. You are suggesting that our grants not be counterproductive to existing funds. I am suggesting actively using the grants or loans programs to encourage consolidations and mergers.

Dr. **Aery**. I am not sure how you would do that. I have had so much trouble in Missouri doing it within the State. I would hate to think about the Federal Government. I really don't know how you would do that, particularly because the States are so different.

Not all States overbuild. Some States, Michigan is one of them, where there are clear differences, the two institutions we were talking about, do for the State, one in agriculture and the priorities, so I think the States are so different, I would hesitate to suggest that you go past what I earlier suggested.

Mr. **Ford**. Dormitories are a little different than other kinds of facilities in the sense that just in the last 20 years, there has been a dramatic difference in the mix of students going to many colleges and universities.

A few years ago at the—one of the State universities in my district, they had empty dormitories, and when my daughter went to school there, they had three to a room. For a few years in the late sixties, for whatever reason, people started living in apartments jointly, and all this sort of thing, off-campus, and now apparently parents are saying, we want our kids in a dormitory, and now we have people calling us:

"Congressman, can you help us get our entering freshman in a dormitory?" Just a few years ago, there were complaints about the dormitories, the maintenance, the dorms sitting empty.

Now, the student population has gone up, and the habits of students have changed, and suddenly there is this change in demand for something. That doesn't happen generally with programs. They have a longer evolutionary life, or depth, where you follow academic lines, but something as fragile as dormitories, and even cafeteria facilities, it changes quite abruptly and the schools can't really plan.

Part of the reason that they were building the dormitories is because it was one of the easiest things to get money for. Nobody would say no to getting dormitory money, and so everybody said, well, we got to build something, we will build some dormitories, and there was a period when they overbuilt for the use, but now it would appear, what appeared to be overbuilding 10 years ago is not for today's market.

It is possible, 10 years from now, they will have empty rooms again, but when you are planning for the basic plan of the school, it is quite different. You could have a 50-year-old building, they don't point out new buildings on most campuses, they point out their oldest building.

That is where their institutional pride is. I think that educators, education administrators in the last 10 years, particularly the last half-dozen years, have been forced into doing more practical long-range thinking about investment in facilities than they had to before, and scarcity breeds caution.

So, I am not so sure that we still have a problem. Certainly, with the amount of money that we are putting in, we are not going to have anybody overbuilding.

Frank Mills won't be in for another library for a couple of years.

Mr. ATKINS. When he gets another speaker.

Mr. FORD. Thank you very much.

That was the second bell for a vote. The committee is adjourned.

[Whereupon, at 3:45 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

AMERICAN SOCIETY FOR ENGINEERING EDUCATION,
Washington, DC, September 30, 1985.

Hon. BILL FORD,
Chairman, House Postsecondary Education Subcommittee,
Cannon House Office Building, Washington, DC.

DEAR CHAIRMAN FORD: As a follow-up the testimony given by Dr. Wilbur Meier on September 11, before your Subcommittee, I am enclosing details of ASEE's proposal for changes to Title VII of the Higher Education Act. You will recall that Dr. Meier's remarks focused on the problems of laboratory equipment maintenance.

Allow me to thank you again for inviting the American Society for Engineering Education to testify about this perplexing, and expensive, dilemma before you and your colleagues. If there is any other information which you desire on this or any other topic related to engineering education, I hope that you will not hesitate to contact ASEE.

Thank you very much.

Very truly yours,

W. EDWARD LEAR,
Executive Director.

A PROPOSAL TO PROVIDE FOR MAINTENANCE OF EQUIPMENT UNDER TITLE VII OF THE HIGHER EDUCATION ACT

THE AMERICAN SOCIETY FOR ENGINEERING EDUCATION

Background: On September 11, 1985, Dr. Wilbur Meier, the Dean of Engineering at the Pennsylvania State University, testified on behalf of ASEE before the House Postsecondary Education Subcommittee as part of the discussions of Title VII of the Higher Education Act. In his remarks, Dr. Meier underscored the importance of high-quality laboratories to a first-rate engineering education. He also stressed the problems associated with aging and obsolete academic engineering equipment:

"You would not want your surgeon to operate on you never having practiced his skills in a laboratory setting. But, many of our students are learning their fundamental engineering skills on equipment that was in place before they were born."

Citing several studies which show national academic equipment needs to be in the multi-billion dollar range, Meier urged a fuller recognition of the importance of maintaining current and future equipment purchases as one cost-effective measure to combat the equipment crunch. Drawing on his own experience at Penn State and graphic examples provided by his engineering dean colleagues, Dr. Meier illustrated that "maintenance of academic engineering equipment is as vital an issue as the acquisition of the equipment itself." A few highlights:

A recent survey by the National Science Foundation of 1,200 physical and computer science and engineering departments noted that no less than 80 percent of the research instrument systems in the $10,000 to $1 million range required some type of maintenance in FY82.

Donations of equipment from corporations do not often include maintenance provisions. Some schools reluctantly turn down equipment gifts because maintenance costs would be too high.

Annual maintenance costs run an average of 10% of the purchase price on lab equipment—higher for the kind of maintenance contracts often needed for sophisticated computer systems.

The dean of engineering at Tennessee Tech observes that on a $1 million Calma computer system purchased recently for the school's new computer-aided design laboratory, the $108,000 annual service contract is "more than our entire supplies and expenses budget was 10 years ago."

Proper maintenance of computers includes more than the hardware. A typical maintenance contract on computer software provides modifications and updates as they develop. If a school does not pay this charge, it is left with out-of-date software. This poses a significant problem if the computer is required to communicate with another machine that DOES have the updates.

ABET, the accrediting agency for the nation's engineering schools, will institute a new criterion next year requiring schools to have a "carefully constructed and functioning plan for the continued replacement, modernization, maintenance and support of laboratory equipment and related facilities."

For a detailed discussion of the types of maintenance arrangements often employed by engineering schools, and the costs and benefits of each, please refer to Dr. Meier's testimony.

Clearly, as Dr. Meier notes in his statement to the Subcommittee, the costs of maintenance are an integral part of running a fine academic laboratory. Title VII represents one opportunity to make the federal investment in the equipment used in these labs more cost-effective through a simple recognition of maintenance as a fundamental component of an equipment "package".

The following proposal for the clarification of current Title VII language to accommodate the maintenance concept has two primary thrusts:

(1) A change that will allow an amount equal to or less than 15% of that portion of an award or loan given under Title VII which is directly related to lab equipment or "environment" (i.e. ventilation, temperature) to be allocated by the recipient for maintenance of those features.

(2) A change that will allow that same 15 percent to be used optionally by the recipient to upgrade equipment originally purchased or leased under a Title VII grant or loan within three years of the date of initial use.

Suggested legislative language with rationale for each proposed change follows.

PROPOSED LEGISLATIVE LANGUAGE: TITLE VII—"MAINTENANCE"

Item One—General Purposes, Sec. 701:

"Sec. 701. The Secretary shall carry out programs of financial assistance to institutions of higher education and to higher education building agencies for the construction, reconstruction, or renovation of academic facilities and the acquisition and maintenance of special equipment if the primary purpose of such assistance is— . . ."

Rationale: The addition of the word "maintenance" under the General Purposes section makes explicit the fundamental importance of maintenance and, further, underscores the partnership between acquisition and care of equipment as a long-term investment.

Item Two—General Purposes, Sec. 701.(3):

". . . (3) to enable such institutions to construct, reconstruct, or renovate the Nation's research facilities, including libraries, and to acquire and maintain special research and instructional equipment; . . ."

Rationale: The addition of the word "maintain" makes clear the intent of Title VII to recognize the costs of maintenance as well as acquisition of equipment. As noted in Item One above, such an explicit addition clarifies the real relationship between acquisition and maintenance of equipment as fundamental components of laboratory costs.

The addition of the word "instructional" recognizes those pieces of scientific and engineering equipment which are frequently as fundamental to the academic laboratory experience as research-oriented tools. This is particularly true of undergraduate academic engineering laboratories where two-thirds of our future engineers receive substantially all of their hands-on training. Without adequate attention to acquiring and maintaining badly-needed instructional equipment (current needs in engineering schools alone run to over $2.2 billion) we won't be able to train the young men and women who will in turn conduct our academic and industrial research. Furthermore, the size and special needs of certain instructional equipment require recognition in any attempt to address laboratory facilities. For example, the construction of a wind tunnel, the electrical wiring needed for personal computer "rooms", and the installation of concrete stress measuring devices all dictate special consideration in building or renovation plans.

Item Three—Part A, Grants for the Construction, Reconstruction, and Renovation of Undergraduate Academic Facilities—Allotment of Funds. Proposed Section 713(h):

". . . (h) In addition, an amount less than or equal to 15 per centum of that portion of an award granted under this Part which is allotted by the recipient to meet costs of:

(1) Instructional or research equipment, and

(2) Equipment and structural changes necessary to obtain and sustain the environment (temperature, air quality, etc.) requisite to proper functioning of the new or renovated laboratory, may be allocated by the recipient for maintenance of (1) and (2). Part or all of this percentage may also be applied to costs of upgrading said equipment and structural changes within three (3) years of date of initial use.

Rationale: This new language sets out the 15%-or-less formula option available to schools to accommodate the costs of maintenance associated with outfitting the new or renovated laboratory facilities obtained under Title VII. The 15% ceiling is calculated on the total to be spent by the school on the equipment (instructional, research, and "environmental") and structural changes necessary to set in motion the scientific or engineering academic lab(s)—instructional or research—built or renovated through a Title VII award.

If a school wishes, it need not reserve 15% or any part of the funding for maintenance purposes; it may allocate that 15% for other appropriate uses under this Part. Such an alternative could be to reserve the funds to upgrade these same equipment and structural changes within a three-year period. This second option allows schools to "trade-in" aging equipment or make small structural alterations to accommodate changing needs within a time-frame which discourages obsolescence.

One example of a "structural change" which would fall into this new language is electrical wiring—installation of extensive new wiring is vital to large computer systems. Examples of "environmental equipment" in this new section would include, but are not limited to, air conditioning or air filtering systems vital to the functioning of delicate lab equipment, including computers. Note that a special definition of "maintenance" for this particular category of equipment has been included in the last section of this proposal.

Item Four—Part B, Grants for Construction, Reconstruction, and Renovation of Graduate Academic Facilities—Grants. Proposed Sec. 721(a)(2)(d):

Same language and rationale as presented under Part A.

Item Five—Part C, Loans for Construction, Reconstruction, and Renovation of Academic Facilities—Eligibility Conditions, Amounts, and Terms. Proposed Sec. 731(c):

Same language and rationale as presented under Part A.

Item Six—Part D, General, Definitions. Proposed Sec. 742(3), subsequent paragraphs to be renumbered accordingly:

". . . (3) The term "maintenance", with respect to instructional and research equipment obtained with funding under this Title, shall mean the care necessary to the optimal functioning of such equipment. With respect to the equipment and structural changes related to obtaining and sustaining the necessary environment (ventilation, etc.) for proper functioning of instructional and research equipment, "maintenance" shall mean that portion of care above and beyond normal overhead costs.

Rationale: The differentiation between maintenance of instructional and research equipment as opposed to maintenance of equipment and structural changes vital to securing proper environmental conditions will alleviate any concerns about the underwriting of so-called "normal overhead" costs through Title VII funds. At the same time this separate definition of maintenance for this latter category helps to point out this often-expensive extra increment of care that is vital to special laboratory environments.

Council for American Private Education,
Washington, DC, September 30, 1985.

Representative William D. Ford,
Chairman, House Education and Labor, Subcommittee on Postsecondary Education, U.S. House of Representatives, Washington, DC.

Dear Mr. Chairman: On behalf of the Council for American Private Education (CAPE), I am pleased to submit a statement to the Committee for its consideration in the reauthorization of the Higher Education Act. CAPE is an association of 15 national private school organizations which enroll, in their schools, about 75% of the nation's private school students or approximately 4.2 million students. CAPE's member organizations are nonprofit and subscribe to a policy of nondiscrimination in their admission policies. They include the following:

The American Lutheran Church;

American Montessori Society;
The Association of Evangelical Lutheran Churches;
Association of Military Colleges and Schools in the US;
Christian Schools International;
Friends Council on Education;
Lutheran Church—Missouri Synod;
National Association of Episcopal Schools;
National Association of Independent Schools;
National Association of Private Schools for Exceptional Children;
National Catholic Educational Association;
National Society for Hebrew Day Schools;
Seventh-day Adventist Board of Education, K-12;
Solomon Schecter Day School Association;
U.S. Catholic Conference; and
25 associated state organizations.

Our member organizations have several concerns about key sections of the Higher Education Act. Two of our member associations, the United States Catholic Conference (USCC) and the National Association of Independent Schools (NAIS), have independently submitted their recommendations to the House Education and Labor Subcommittee on Postsecondary Education in response to requests in April from the Chairman and ranking Minority member. We are pleased to submit a formal statement for the record which represents the overall concerns of CAPE's member schools.

FEDERAL FINANCIAL AID POLICY

Our major concern has to do with the serious failure of financial aid policy to comply with Congressional intent in the determination of financial aid to private school families. Congress clearly intended that the educational expenses of other dependent children would be fully deductible in computing family financial need. Today these are not deducted in the manner directed by Congress.

Our organizations have been concerned particularly about the way in which the National Student Aid Coalition and its subcommittee the Committee on Needs Assessment and Delivery (CONAD) have been interpreting the language in Section 482a (2)(F) of Title IV. This section stipulates that expected family contribution shall be calculated on the basis of several criteria, among them "any educational expenses of other dependent children in the family."

The Uniform Methodology, as it has been developed by the National Student Aid Coalition places restrictions on the elementary and secondary school allowance that directly contradict Congressional intent. The formulas set by the National Student Aid Coalition imposed a floor of 4% of income on the allowance for families of recipients of campus-based federal financial aid programs for the academic year 1983-84 and added for 1984-85 a $1,400 cap. In our opinion this was beyond their authority. The modifications which had been set by the National Student Aid Coalition resulting in both a $1,400 cap as well as a 4% floor, were not consistent with Congressional intent in regard to these statutes. They in fact discriminate against parents of private school students.

The private elementary and secondary school community strenuously objected to these changes and attempted to remedy this serious departure from legislative intent. They were strongly supported in this effort by the leadership of the House Education and Labor Committee and the Senate Labor and Human Resources Committee. To quote from a letter on this subject which the late Representative Carl D. Perkins sent to Secretary Bell on August 16, 1983, "Since the allowance was first introduced in 1972 for the SEOG Program (P.L. 94-482, Section 411(a)(3)(B)(ii), the tuition paid for a student in a private elementary or secondary school was always a simple deduction from 'effective family income' in determining which families had children eligible for Pell grants and SEOG awards. In my opinion, this mode of implementation was consistent with the clear intent of Congress."

The National Student Aid Coalition's May 9, 1984 decision to revise and redefine the cap as well as remove to the floor on the private school tuition allowance is not a satisfactory response to the objections the private school community has expressed over the past year. A higher limit on the deduction available to parents is no more in accord with the intent of Congress than the $1,400 maximum in the previous policy.

We believe there is no sound policy reason for any cap. To our knowledge, there is no empirical data that would suggest that the sibling tuition expense deduction is being abused by high income families seeking to gain a windfall benefit from the law. To the contrary, the vast majority of families whose children attend schools of higher learning and incur the high costs of sending their younger children to nonpublic elementary and secondary schools do so because of religious, moral or educational conviction, not because they have large amounts of discretionary money. The assumption is erroneous that family expenditures for private elementary and secondary school tuitions are a purely discretionary use of income.

In addition to the impact on families a directly related emerging issue is that as college financial aid resources diminish, private school financial aid programs are being forced to fund the slack in cases in which parents pay tuition concurrently to college and pre-collegiate institutions.

Tuition charges in private schools reflect the necessary costs of operating them without government subsidies. The equating of high tuition with family wealth is highly misleading and is unfair to the private school families that are struggling financially. In fact, a recent survey by the National Association of Independent Schools (NAIS) shows that approximately 18% of all students in independent schools currently are receiving financial aid, two-thirds of the funds for which come from tuition receipts. Consequently, these high tuitions are in fact subsidizing the education of their low income families. During the current academic year, the schools that are members of NAIS will award over $102 million in financial aid to students.

We urge the Committee to state clearly and unequivocally its intent in the new legislation reauthorizing the Higher Education Act that the needs analysis process should reflect the inclusion of elementary and secondary school expenses in determining a person's eligibility for federal financial student assistance. This can be most expeditiously handled by utilizing the Pell Grant financial need calculation. The overriding issue is one of Congressional intent based on fairness.

Our experience has raised serious questions about the process by which the Higher Education Act is implemented. We urge greater Congressional oversight of this process to ensure that misinterpretation neither continues nor recurs. We also urge the Committee to adopt provisions which will require the Secretary of Education, in cooperation with representatives of agencies and organizations involved in student financial assistance, including those representing private pre-collegiate institutions, to determine annually the effect of any proposed federal financial aid policies on families who pay tuition concurrently for pre-college and collegiate education as well as the effect of federal financial aid policies on school financial aid policies.

The following comments are on existing provisions of the law.

TEACHER TRAINING PROGRAMS—PART B

Section 542

Under this section fellowships are awarded to persons who are in training programs to become special education teachers in areas with a shortage. Fellowship recipients are required to teach for at least two years in a public elementary or secondary school which has a special education program for handicapped children. We think this is an excellent incentive for encouraging young teachers to enter the field of special education. However, we do not see why this requirement should be limited to public school teaching. Fellowship recipients should also be permitted to fulfill their two-year training requirement by teaching in private elementary or secondary schools which have special education programs for handicapped students.

We urge the Committee to broaden the provision to permit fellowship recipients to fulfill their teaching requirements at private schools as well as public schools.

CARL D. PERKINS SCHOLARSHIP PROGRAM—PART E

Section 563

Under the sections designed by the 98th Congress to increase the quantity of precollege teachers and to improve the quality of current teachers, we strongly recommend that the teaching requirement for this scholarship program, Sec. 563 (b)(4)(A), treat public and private schools the same, instead of limiting eligible service in private schools to "Chapter I" schools only.

Under this program for each year of scholarship assistance received, a recipient is required to teach two years in a public elementary or secondary school, or if a recipient teaches in a school serving high concentrations or economically disadvantaged students, or children with limited English proficiency or handicapped students, the service requirement is reduced to one year for each year of assistance awarded.

Scholarship recipients may fulfill their service requirement by teaching in a private nonprofit elementary or secondary school but only in such a school located and serving students in a district eligible for assistance pursuant to Chapter I of ECIA. On the other hand, recipients may fulfill their service requirements by teaching in any public elementary or secondary school. This provision is inequitable because it treats public school teachers differentlv from private school teachers. If there are restrictions and limitations on private schools at which a recipient may teach, then those same restrictions should apply to public schools.

Furthermore, the requirements of Section 563(b)(4)(A) of the Higher Education Act in their treatment of private and public school teachers are inconsistent with the provision of Section 465(a)(2)(A) of the same act which treats them equitably. We recommend that the section be amended to remove the limitation and this inconsistency.

EXCEPTION TO REPAYMENT PROVISIONS

We also note that Sec. 568 (a) dealing with 'Exceptions to Repayment Provisions,' is currently limited to public school teaching. It should be modified so that a recipient would not be considered in violation of the agreement entered into pursuant to Section 563 (a)(4) if the recipient is seeking and unable to find full-time employment as a teacher in a public or provide nonprofit elementary or secondary school or a public education program. We would recommend an amendment to add private school teaching as well as public school teaching to clearly indicate the intent of Congress to treat private schools as equitably as public schools in the purposes of this program.

TEACHER COMPETENCY

Under Section 566(B) we are concerned with the current requirement regarding competency. Although a majority of private school teachers are State certified, a large majority of private school principals do not think State certification is a requisite for good teaching and nearly half of all private schools do not require certification of their teachers. Because potential private school teachers are included among Carl D. Perkins Scholars, we strongly urge that the Committee amend the current phrase 'pursuing a course of study leading to teacher certification;' to read 'pursuing a course of study leading to teacher competency.' This change does not in any way weaken the intention of assuring that the Carl D. Perkins Scholars are potentially competent teachers.

HIGHER EDUCATION—ELEMENTARY AND SECONDARY EDUCATION RELATIONS

Finally, we urge that steps be taken by Congress to address the state of nearly total indifference which characterizes the relationship between higher and elementary and secondary education.

Athough self-explanatory, it is clear from 'A Nation At Risk' and other studies that the problems and condition of education cannot be effectively addressed piecemeal. Schools and colleges need each other. Their health is mutually dependent. There should be national recognition of this fact and visible means put in place to address mutual interests systematically and effectively. A small group of major college presidents has been active in this area. Their work is valuable but the scope and importance of the task requires a federally sponsored strategy.

We support the creation of a means by which issues which mutually affect precollege and college education can be focused on systematically. We would recommend that an ongoing Commission be established composed of 12 members, 5 from the college and university community, 5 from elementary and secondary education and 2 from the general public, including 2 representatives each from private and independent pre-collegiate and collegiate education to be appointed in equal numbers by the Senate, the House of Representatives and the President to monitor and advise on issues in which the well-being of both sectors is mutually affected and that an annual report covering these matters be submitted to the Secretary and to Congress.

Although the last suggestion may sound radical, it is greatly needed in our view.

We would also like to take this occasion to urge you and members of the Committee that any newly created programs considered and adopted by Congress, especially those providing assistance for teacher training programs, be designed in such a way as to treat the public and private school sectors fairly and equitably.

Mr. Chairman, we respectfully request that this letter be entered into the record of hearings on the reauthorization of the Higher Education Act which are being held by this Committee.

Thank you for your concern and consideration.

Respectfully submitted,

ROBERT L. SMITH
Executive Director.

PREPARED STATEMENT OF WALTER C. BOWIE, DVM, PH.D., DEAN, THE TUSKEGEE INSTITUTE SCHOOL OF VETERINARY MEDICINE ON BEHALF OF THE ASSOCIATION OF MINORITY HEALTH PROFESSIONS SCHOOLS

Mr. Chairman and members of the Subcommittee:

Thank you for the opportunity to appear before you today to discuss the views of the Association of Minority Health Professions Schools (AMHPS) concerning the Higher Education Act's Academic Facilities and Construction Programs.

Our Association is comprised of all of the minority health professions schools in the nation—with the exception of federally funded Howard University—The Morehouse School of Medicine, Tuskegee Institute School of Veterinary Medicine, of which I am Dean, Xavier University College of Pharmacy, Florida A&M University School of Pharmacy, Charles R. Drew Postgraduate Medical School, Texas Southern University School of Pharmacy and Meharry Medical and Dental Colleges. The eight institutions of our Association have graduated 43 percent of the nation's black physicians and dentists, 50 percent of the nation's black pharmacists, and 90 percent of the nation's black veterinarians. We consider these institutions a national resource that produce a special product vital to the country in many ways.

Mr. Chairman, you and other members of the subcommittee may have heard of an emerging surplus of physicians and other health professionals in the nation. Please let me make clear that this perceived abundance does not apply at all to Blacks in the health professions. Although Blacks represent nearly 12 percent of the United States population, only 2.6 percent of the nation's physicians, 2.9 percent of the nation's dentists, 2.3 percent of the nation's pharmacists, and 1.6 percent of the nation's veterinarians are black. These figures are only slightly higher than in 1950, a generation later. These shortages are reflected in the critical health status disparity between blacks and whites that exists in this nation. Black infants are twice as likely to die in their first year as are white infants. The life expectancy of whites in this nation is five years more than that of blacks. In some rural counties of Georgia, the life expectancy of blacks is less than 50 years — this is less than the life expectancy rate of an underdeveloped country such as Kenya! A health professions glut? Not of blacks, Mr. Chairman. I might mention that the professionals that train at our institutions are more likely than their white counterparts to practice in underserved rural and inner city locations where there is a critical need to treat minority patients.

A historical problem for each of our institutions has been the development and maintenance of adequate facilities to nurture the type of environment conducive to learning. It has been a struggle to adequately house our students. Many of our schools are not ultra modern, state-of-the-art facilities. Even our newer institutions are sorely lacking in new or renovated facilities to expand our teaching, research and patient care capabilities. To be able to compete with larger, better developed institutions, it is crucial for our schools to continue to expand our facilities as well as our student enrollments. The development of our institutional infrastructures is critical to our ability to attract bright students, top faculty, and expert researchers. We believe this is the eventual key to addressing the persistent health status disparity that exists in the nation. Some of our institutions contribute otherwise to our national priorities. For example, Florida A&M University College of Pharmacy researchers are working closely with NASA to develop space sickness medications that have minimal effect on the astronauts' ability to perform their duties. Yet, their facilities are so cramped, they are finding it difficult to carry out these important trials.

As you are aware, Mr. Chairman, the state-of-the-art in medicine fields changes rapidly. Our historically financially strapped institutions find it increasingly difficult to keep up with the new technology and equipment that is being introduced at an incredibly rapid rate. We need additional funds to obtain the state-of-the-art.

Mr. Chairman, the member institutions of the Association of Minority Health Professions Schools find it distressing that a great portion of the recently appropriated funds of the Higher Education Construction, Renovation, and Facility Programs have been awarded to a relative small number of institutions who do not have a history of great financial burden.

We support current proposals that would increase authorization levels in these construction, renovation, facility improvement and housing programs. Further, we encourage the committee to expand these programs to encompass a greater realm of programmatic and institutional activities that include the funding of grants to institutions, such as ours, who are sorely in need of new and renovated facilities, as well as new equipment that will help us keep up with current health advances.

I appreciate the opportunity to express the views of the Association of Minority Health Professions Schools. Please be assured, Mr. Chairman, that we are dedicated to working with your Subcommittee to implement our recommendations. I am pleased to answer any questions you may have.

REAUTHORIZATION OF THE HIGHER EDUCATION ACT

Title VII (Construction and Renovation of Academic Facilities); Title IX (Graduate Education); Overview

Volume 9

THURSDAY, SEPTEMBER 12, 1985

House of Representatives,
Subcommittee on Postsecondary Education,
Committee on Education and Labor,
Washington, DC.

The subcommittee met, pursuant to call, at 9:30 a.m., in room 2261, Rayburn House Office Building, Hon. William D. Ford (chairman of the subcommittee) presiding.

Members present: Representatives Ford, Tauke, Gunderson, McKernan, Coleman, and Hayes.

Staff present: Thomas Wolanin, staff director; Kristin Gilbert, legislative associate/clerk; Maryln McAdam, legislative associate; and Rose DiNapoli, Republican legislative associate.

Mr. Ford. I am pleased to call to order this hearing of the Subcommittee on Postsecondary Education. We are continuing our hearings on the reauthorization of the Higher Education Act.

This is our 21st hearing here in Washington on specific facets of the Higher Education Act. We have at this time completed 10 field hearings, a total of 31 hearings, and accumulated at this point over 90 hours of formal testimony during the reauthorization process.

We have two more Washington hearings scheduled and two field hearings scheduled, and the hearings, I hope, will then have been completed.

Today's hearing will focus on the programs in title IX of the Higher Education Act. This title provides for grants to institutions of higher education to support graduate study. Unfortunately, funding for these programs has been severely limited by our current budget environment, and the majority of graduate students receive little or no assistance from the programs under the title at the present time.

A serious concern in higher education is how best to assist graduate students and institutions. While we are aware that this is not the time for expansive and costly new programs, we are equally aware that if we are to maintain the knowledge and information base this country currently enjoys, we must find ways to support talented but needy graduate students. It is our hope that the witnesses here today will be able to shed some light on possible solutions to these problems.

First, we have our colleague, the Honorable Bill Green, with us. I think you have a former colleague with you, Bob Taft. Morning, Bob. And Marilyn Chelstrom.

Mr. Green. Thank you, Mr. Chairman. I had also hoped to have another former colleague, Birch Bayh, with us, but he was unfortunately unable to make it. But I think it does emphasize the two party nature of the Taft Institute and something of what it is trying to do.

I do have a prepared statement, if that could simply be inserted into the record.

Mr. Ford. The point is even better emphasized by the fact that it was passed by a Democratic Congress.

Mr. Green. Yes, indeed. How true. If I could have my full statement inserted into the record.

Mr. Ford. Without objection.

STATEMENT OF THE HONORABLE BILL GREEN

Mr. Green. Mr. Chairman, members of the committee, the Taft Institute for Two-Party Government, in my view, with a very modest Federal contribution does a very important job of very significant scope in terms of the educational processes in our country. In conjunction with colleges and universities around the country, it sponsors seminars in practical politics and political science for teachers who teach, our high school and, to some extent, our grammar school children, and gives them something of a practical feel for what the political system is all about so that when they're teaching, they're not just teaching from textbooks, but they have some understanding from participants in the system of how it really works.

I know I and many other Members of the Congress have participated in these seminars, and I personally can vouch from the feedback I've gotten from the teachers who are participating in them how valuable they find them.

We come to you, because of the need for reauthorization for this program, which has had a rather curious funding history. It was, as you pointed out, Mr. Chairman, authorized by a Democratic Congress in the late seventies. However, it ran afoul of the 1981 reconciliation bill which deleted the authorization along with that of many other programs. But I guess, because of the very large size of that reconciliation bill, no one seemed to know for a while that that in fact had happened, and the Appropriations Committee merrily continued on its way and, in fact, funded the institute at a $750,000 a year level.

In fact, the Department of Education had apparently informed the institute that it was appropriate to seek an appropriation contingent on fulfilling the dollar for dollar matching requirements by September 30, 1983. However, in fiscal year 1984 someone finally caught up with the state of the authorization situation, and the institute, as a result, lost its appropriation. But again, the appropriation was restored for fiscal year 1985.

I guess we are coming here to say to make us legitimate, and asking this committee to restore the authorization so that we, the institute, can proceed about its business in a normal way. We appreciate the support that this subcommittee has given the Taft Institute in the past, and we hope that it will renew that support at this time.

[The prepared statement of Hon. Bill Green follows:]

PREPARED STATEMENT OF HON. BILL GREEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. Chairman, members of the Subcommittee, I am pleased to appear before you today in support of The Taft Institute for Two-Party Government and my legislation to reauthorize that Institute.

The Taft Institute is one of those rare publicly-supported institutions that is bipartisan in nature, invaluable to educators and a modest investment of the taxpayer's dollar.

The Taft Institute, established in the memory of the late Ohio Senator, Robert A. Taft, promotes education in the principles of American government, the value of two-party government, and the compelling need for responsible citizen participation in politics. The Institute, in conjunction with colleges and universities throughout the country, sponsors seminars in practical politics and political science for teachers, many of whom have little or no practical experience in either political science or politics. Those seminars vary in length from two to four weeks, and participants are awarded graduate credit. Each seminar is organized according to comprehensive guidelines and is directed by a professor of political science who is a member of the faculty of the sponsoring institution.

Through 1984, 500 seminars have been sponsored by 104 colleges and universities in 42 states and Washington, D.C. 15,000 teachers from all 50 states have been enrolled, potentially influencing 2 million students. The Institute also publishes a series of booklets which are used in the seminars, and later by the teachers in their classrooms.

Mr. Chairman, the history of federal support for the Taft Institute is long and convoluted. After a history of federal support, authorization of funding for the Taft Institute was deleted in the Reconciliation Act of 1981. However, this fact was apparently lost on the Appropriations Committee, which continued to fund the Institute at $750 thousand. Subsequently, the Education Department informed the Institute that an appropriation was in order, contingent upon fulfilling the dollar for dollar matching requirement by September 30, 1983, despite the fact that their authorization had been eliminated in the 1981 reconciliation bill. This lack of authorization was discovered in FY 84, and the Institute lost their appropriation. However, the appropriation was restored at $750 thousand in FY 85.

If this sounds confusing to you, I can assure that it is even more so to the Taft Institute. Mr. Chairman, I feel it is long since time we restore the authorization to this worthy institution. It is a very small investment in a very worthy goal—assuring that our nation's educators have immediate exposure to our nation's politicians and our the way in which we govern. I would urge you to incorporate my bill, H.R. 1047, into the Higher Education Act reauthorization.

Mr. Chairman, you will be hearing now from witnesses whose experience with the Taft Institute and its programs is much greater than mine. I would urge all the members of the Subcommittee to pay close attention to their testimony and I am certain they will understand the importance of reauthorizing a federal commitment to this important institution.

Mr. FORD. Bob, did you want to make a comment?

STATEMENT OF HON. ROBERT A. TAFT, JR.

Mr. TAFT. Thank you much, Mr. Chairman, and members of the committee.

We have a formal statement for the institute that Ms. Chelstrom will present to you or summarize for you. I just would like to say in coming here that I appreciate greatly—I'm sure my family does, and I think all those who founded the institute and the foundation that was formed as a memorial after my father's death are appreciative of the actions of the Congress in the past, not only in the matching fund support that has been given, and we hope will be renewed in a new authorization this year, but also in the tremendous participation of many, many Members of the House and Senate both in the seminars around the country.

We've now had 12,000 teachers go through these programs, and I think that the overall understanding that this has given of the need for a viable two-party system and sound constitutional principles being followed and taught to our youth has been of great value to the country.

I just want to express my appreciation for your help in it, and hope you'll feel you can continue to support it.

It is interesting historically—this isn't in the statement, but some of you might be interested to know that the money originally came from private funds that were set up to build the tower. There was a split among my father's friends as to whether we should have a so-called living memorial or a physical memorial, and the physical memorial people won in the argument. That was slightly more numerous, but there was $200,000 left after the $1 million that had been raised for the tower, and that money was then put into this institute. That's what the origin of the idea was.

Thank you very much for the privilege of being here.

Mr. Ford. Thank you. Ms. Chelstrom.

STATEMENT OF MARILYN CHELSTROM, PRESIDENT, ROBERT TAFT INSTITUTE

Ms. Chelstrom. Thank you, Mr. Chairman, for this opportunity to come and testify on behalf of the trustees for the work of the Taft Institute.

I have directed the staff for over 20 years, so I am very familiar with the program. We have been working with the teachers to carry out our purposes for more than 20 years. The Taft seminars for teachers have been our chief effort.

We started to work with teachers, because we realized what a tremendous job they have to train children and young people to understand what our principles of government are, what our American individual freedoms are, what the two-party system is and what the obligations of citizens are in our country, or in self-government.

We also found at the beginning that few teachers have been prepared to teach practical politics, to teach the realities of government; and we have learned even more about this as we've been conducting our programs. Of the 12,000 teachers who have participated since 1970, all of whom have responsibility for treating government in their classrooms, 45 percent have had 2 or fewer political science courses in their background, and about 20 percent have never had a political science course. Yet these are the people who are teaching young people what government is and what the political responsibilities of individuals are.

We also are working with teachers, because we had a little bit of money; and by working with teachers, each dollar goes a long way, as each teacher influences at least 150 young people in 1 year.

The Taft seminars themselves are very rigorous, concentrated, intense courses. They all are held on college and university campuses, and they offer graduate credit to the teachers who take part. The unique and very exciting part of the program for the teachers is the faculty. Republicans and Democrats, experienced politicians, elected officials, as well as political party leaders, come to the seminars to teach the teachers.

It provides a very exciting atmosphere. Many of the teachers have never met an elected official, and they are stimulated. They're excited. There is just a magic atmosphere almost in each program, as the political experts come one after another, 30 or 40 sessions in a 2 or 3 week period.

The teachers go away having a much better understanding of what American democracy is all about. They feel that politics and government becomes real to them, and they realize that it's something that's happening at home and that they need to take part in their local communities.

Senator Taft mentioned that many Members of Congress have participated. We have attached to our statement a flier that shows all the Members of Congress, and we have highlighted in yellow each Member, Senator or Representative, who has participated in the seminars. We counted them up yesterday, and 173 Members of Congress have taken part, some as many as 10 and 15 times. Congressman Green, I think, is approaching the 10th time level, and Congressman Jim Jones out in Oklahoma, for example, has appeared more than 15 times at the Taft seminars.

I think all of these people must feel that the programs are doing something good, or they wouldn't take the time to spend with 25 or 30 teachers at the programs.

All the seminars are organized according to very careful guidelines, and we work with the local directors, all of whom are professors of political science and all of whom have some experience in the world of practical politics. Each one must know well the Republicans and Democrats in the State, and they must know the director.

Well, following participation in the programs, teachers respond with great excitement. I have personally spent at least 1 or 2 days in more than 400 of the seminars, and the teachers tell me that they have never worked so hard, because we insist that there are readings as well as academic lectures to prepare for the politicians that they have never learned so much in 2 weeks, and that they have never enjoyed it so much.

Many of them say things like, it's the most powerful experience that they have had in educational course. Many of them will say that they never realized the worth of a two-party system. Many of them say, I now understand that one person can make a difference in our political system.

This past summer of them in August when I was visiting said, I can hardly wait for school to start in September; I've got so many things to tell my students.

I think that, if you read our evaluations, that you would be assured that this program is unusually effective in helping teachers correct the deficient backgrounds in practical politics and political science; and that is a strong motivator for inspired teaching on government and politics.

We have over the past 20 years conducted 525 individual Taft seminars. They've been held on the campuses of 106 different universities, and the 16,000 teachers who have participated touch the lives and affect the learning of 2 million students in any 1 year. All the teachers receive graduate credit. Many of them go back for more political science, because they realize how much they did not know.

I have men and women who have been teaching for 20 years come up to me and say, I've been teaching it wrong all these years, I have to learn more. So we give the teachers a stimulus to do more things to become good teachers. They also are boosted in their own self-esteem as the prestigious politicians will take time to come and meet with them, and they are motivated to become better teachers.

The funding that we have had from the Congress, the matching grants, has made—or the appropriations, matching appropriations, has made a great difference to the institute. We find fundraising is very difficult, because the purposes of our organization are not in the guidelines of corporations and foundations, and with a matching public/private match we find it's a motivator for raising the funds that we need to run this program.

I will say, and it's in our statement, that if we had not had the matching appropriations in 1983 and 1985, I doubt that the Taft seminars could have continued at anywhere near the level that they have been held during the past years. I also can guarantee you that, if you will approve another authorization for a public/private match for the Taft Institute, that the trustees and staff will vigorously pursue the fund raising that they have carried out over the past 20 years.

Thank you very much on behalf of the trustees for listening to our testimony today.

[The prepared statement of Marilyn Chelstrom follows:]

PREPARED STATEMENT OF MARILYN CHELSTROM, PRESIDENT, THE ROBERT A. TAFT INSTITUTE OF GOVERNMENT

The Robert A. Taft Institute of Government was organized in 1961 in memory of the late Ohio Senator, Robert A. Taft, to spread knowledge of the American constitutional principles of government, the two-party political process, and the citizen's role in self-government.

The Institute is nonprofit, bipartisan, and chartered under the Board of Regents of the State of New York. It is classified as a 501(c)(3) organization, exempt from Federal income tax, and as a publicly supported organization under section 170(b)(1)(A)(vi) of the Internal Revenue Service Code.

For over 20 years, the chief program, Taft Seminars for Teachers, has been directed at elementary school and high school educators, for several reasons:

1. Teachers have an enormous job to make children and young people fully aware of the American constitutional principles of government, of American individual freedoms, the benefits of two-party government, and the ways citizens must participate in the political process in order to maintain their liberties.

2. Most teachers, however, are not prepared adequately to teach the realities of government and politics in the United States. Few have academic background in political science; and hardly any have practical political experience.

During the years 1970–1985, over 12,000 teachers—all of whom had responsibility for treating government in their classrooms—were enrolled in Taft Seminars. Taft Institute studies show that 45 percent of these teachers had taken at the most 2 courses in political science; 19 percent had no political science courses in their backgrounds.

3. Most teachers, when they enrolled in Taft Seminars, said they had little understanding of the meaning of a two-party system, or the ways political parties help make the government function, or provide the channel for citizen political involvement. (In fact, many teachers have related that prior to their Taft Seminar experience they felt that multi parties might be all right, or as many parties as there are interests. They leave a Taft Seminar with strong feelings about the value of two energetic parties.)

4. All teachers have tremendous influence. Each secondary teacher affects what 150 young people learn each day.

5. Dollars put into helping teachers are multiplied many times.

TAFT SEMINARS FOR TEACHERS

The Taft Seminars are rigorous, intense courses in practical politics and political science. Held on college and university campuses across the country, each one runs two or three weeks, and awards graduate level credit.

A unique and exciting ingredient of the Taft Seminars is the faculty. Twenty to forty experienced politicians, Republicans and Democrats, elected officials, party leaders, and other political experts, teach the teachers at each program. Annually, close to 1,000 such individuals are members of Taft Seminar faculties throughout the country. Exhibit A—1985 Taft Seminar Locations.

They come, one after another, 30 to 40 sessions over two or three-weeks. It is an exhilarating environment. For many teachers, it is their first opportunity to meet an elected official face to face. The teachers are invigorated. The political experts share with them their candid impressions on government, two-party politics, the roles of representatives, and their feelings about obligations of individual citizens in the political process. The politicians are refreshed with the educators' astute questions. The teachers expand their understanding of the meaning of government by the people. Politics takes on realness, and excitement, and a close-to-home existence they had not gained from their previous education or experience. Exhibit B—Taft Seminar Flyer.

173 Members of the 99th Congress have served on faculties of one or more Taft Seminars for Teachers, some as many as ten times. Exhibit C shows Members of Congress, as well as 28 Governors who have been Taft Seminar speakers.

All Taft Seminars are organized according to guidelines supplied by The Taft Institute. Local directors are professors of political science who are on the faculties of the sponsoring institutions. All chosen directors must possess a good understanding of the world of practical politics and be well acquainted with both Republicans and Democrats in their own states. Many of those chosen to direct Taft Seminars also are elected officials or political party leaders at local and state levels.

To assure high quality, The Institute monitors the planning, organizing, and conducting of each program. Texts and coordinating materials are supplied, and wherever a local director might encounter a difficulty, The Taft Institute staff is ready to assist.

The Taft Practical Politics Series booklets and lectures from the political scientist-directors provide background and prepare the teachers for their sessions with the political experts. (Assigned readings for the 1985 Taft Seminars are shown on Exhibit D.)

Following participation in a Taft Seminar, most teachers will say that they "never worked so hard; never learned so much; and never enjoyed it more." Exhibit E—Typical Taft Seminar.

This program is unusually effective in helping teachers correct deficient backgrounds in practical politics and political science, and in motivating inspired teaching of government and politics. Moreover, the self-esteem of each teacher is boosted when prestigious politicians take time to meet with them, some traveling many hours. For example, Senator Frank Murkowski flew all night in order to spend a Saturday morning with 1985 Taft Seminar teachers in Fairbanks, Alaska.

Moreover, the teachers come to feel that they have an important role in the political process and leave the Taft Seminars enthused and determined to make election and legislative processes come alive in their classrooms.

The benefits emanating from Taft Seminars are immense for the entire country. Through better trained and highly motivated teachers, thousands of students are provoked to learn the meaning of American democracy and are encouraged to get involved in the political process.

Through 1985: 525 Taft Seminars for Teachers have been held in 45 States, on the campuses of 106 Colleges and Universities; 16,000 Teachers—from all 50 states—have been enrolled. They influence 2,000,000 Students in one year.

The Taft Institute has made an imprint on political education, and has encouraged positive thinking—and doing—in the field of American two-party politics. Enabling the Institute to continue, as well as to broaden its work, will benefit the entire country.

Raising the funds required to carry out the objectives of The Taft Institute is difficult, however, as there is little understanding on the part of corporations or foundations of the need to educate on the worth of two-party government, the functions of political parties, or the need for responsible political involvement by individual citizens. The purposes of The Taft Institute are seldom in contributions guidelines. Federal appropriations approved for the Institute on a 50/50 match basis offer a stimulus to potential private source contributors.

If The Taft Institute had not received matching appropriations in 1983 and in 1985, it is doubtful that the Taft Seminars for Teachers could have continued, or that The Taft Institute would have remained in existence.

The public/private matching of funds makes a big difference. It is the full intent of the Trustees and Staff of The Taft Institute of Government to carry on vigorous fund raising efforts which have made possible the Taft programs which were piloted in 1963 and gradually increased over the past 22 years. Since 1963, more than $9 million has been raised through gifts and grants from private sources: individuals, corporations, and foundations.

Further, during each of these years, 78–80 percent of the Institute's expenditures have been for its programs, with 10–11 percent for fund raising, and 10–11 percent for administration.

Matching appropriations for three more years will enable The Taft Institute to extend its programs to reach many more teachers, students, and the citizenry across the country.

As far as we know, there is no other organization with a principal purpose to promote understanding of the benefits of two-party government in sustaining American individual freedoms.

This testimony is presented on behalf of the officers and members of the Board of Trustees of The Robert A. Taft Institute of Government. Their names follow:

Mr. Prescott Bush, Jr., Chairman, President, Prescott Bush & Company, Inc., New York City; Miss Marilyn Chelstrom, President, Chief Operating Officer, The Robert A. Taft Institute of Government, New York City; Hon. Clark MacGregor, Vice Chairman, Senior Vice President, United Technologies, Washington, D.C.; Mr. William F. May, Vice Chairman, President, Statue of Liberty Foundation, New York City; Mr. Gerald L. Olson, Vice Chairman, Vice President, The Pillsbury Company Minneapolis, Minnesota; Hon. Frank Pace, Jr., Vice Chairman, Chairman, National Executive Service Corps, New York City; Lowell Wadmond, Esq., Vice Chairman, Senior Partner, White & Case, New York City; Jeremiah Milbank, Treasurer, Investment Management, Marion J. Epley, III, Esq., Counsel, New York City, Partner, White & Case; New York City Hon. Birch Bayh, Jr., Partner, Rivkin, Radler, Dunne & Bayh, Washington, D.C.; Hon. Henry Bellmon, Former U.S. Senator, Redrock, Oklahoma; Mr. Gilbert Carmichael, Automobile Dealer, Meridian, Mississippi; Hon. Francis L. Dale, Commissioner, National Indoor Soccer League, Los Angeles, California; Mr. Michael A. Dively, Former State Representative, Traverse City, Michigan; Dr. Elizabeth Griffith, Author, McLean, Virginia; Mr. Paul L. Parker, Executive Vice President, General Mills, Inc., Minneapolis, Minnesota; Dr. Arthur L. Peterson, President, Lebanon Valley College, Annville, Pennsylvania; Mr. William Wood Prince, President, F. H. Prince & Co., Inc., Chicago, Illinois; Hon. John Rhodes, Cummings and Lockwood, Washington, D.C.; Hon. William A. Shea, Shea & Gold, New York City; and Hon. Robert Taft, Jr., Partner, Taft, Stettinius & Hollister Cincinnati and Washington, D.C.

Mr. Ford. Thank you. That's the best, concise description of your activities that I've heard in my 21 years on this committee. As you may recall—I know that Bob would—in the 1979–80 reauthorization cycle, when we did reauthorize the program, there was considerable discussion during the conference with the Senate about the political flavor of the Taft Institute, the feeling on the part of some people being that the makeup of the resource people was not well enough balanced. That was a rather heated argument that I recall in the conference, coming from both sides, the House and the Senate.

I hope that you took note of that and tried to respond to the concerns that they were articulating at that time.

The idea of what you're trying to do has great appeal to me and to many others on this committee. I doubt that there's any committee that suffers more from the frustration of the lack of knowledge of the political process on the part of educators, mainly because we're lobbied constantly by educators who come to us with great backgrounds in education and not the foggiest notion of what it takes to pass laws in the Congress, the difference between an authorization and an appropriation, the difference between a budget and an appropriation and an authorization.

There are times in frustration when I, addressing groups of education administrators who are here for a purpose, have asked them how many of you feel that you had an adequate preparation in high school and college in the field of political science or public affairs, and then invite those people to leave the room because they've already been ruined and they aren't going to understand anything we say.

The experiences I've had in 21 years on this committee of talking to people in education who have a concern and interest and do not relate that in any way at all to the political process have great difficulty understanding the realities of the political process. Why can't a good idea simply be seen by everybody and adopted? Why does it take so long for a good idea to move to the top?

Education, as a matter of fact, and the Federal Government's involvement in it, is a very good study of the governmental process. I find that even a majority, and I suspect at least a majority, of the present Members of Congress in both political parties think that the Federal Government's involvement in education started with the Kennedy-Johnson period, and you frequently hear people say this. It wasn't until Kennedy and Johnson started all this that the Federal Government started meddling in education. The Heritage Foundation says this over and over again.

They forget that the Continental Congress got into the education business before the predecessors of this Congress ever had its first meeting, and that indeed the first real big commitment in higher education by the Federal Government was the first Morrill Act, a fine member of Mr. Lincoln's party who should be remembered much better than he apparently is for having established across this country the greatest impetus for public colleges and universities that the Federal Government ever launched at any one time before or since.

The historically black colleges will be in here. The administration is coming in to give us their position on what they want to do with them, and they don't realize that the second Morrill Act established a number of them. That was the separate but equal Land-Grant College Act, an act that today would look very ludicrous to us, but nevertheless for its time it was a great move forward.

The involvement has been a long and constant one with fits and starts and most generally interrupted by the political process, because it got identified from time to time with one political party or another. People forget that President Eisenhower was, by today's standards, a great supporter of education.

They also forget that when they were on this committee together, two former Presidents were on opposite sides of the issue, President Nixon, surprisingly enough, for Federal aid to education, and President Kennedy, then House Member Kennedy, generally opposed Federal aid to education. But if you ask them now where have these people stood, they do not associate them with any period prior to the time they heard about them as President, and they don't know that they were part of the political process and that they changed some of their thinking during that political process.

I find, in trying to track back how we got to where we are and what we have in educational programs and what we've tried that has worked and hasn't worked, a very interesting mix of people that even I had not thought about as having very much involvement with the issues involving education.

Since we passed the Elementary and Secondary Education Act and the Higher Education Act in 1965, I don't know how many doctoral students have interviewed me while doing their dissertation on the history of how those big acts were passed at the time. They became a kind of a mark in people's mind and maybe the reason why people think that our involvement is so new, because they were a big jump after a long dry spell; and I find that even at a level where they're ready to write their dissertation in a doctoral program, they don't realize there was any history of educational efforts prior to 1965.

I don't know how many times, for example, that the House passed and the Senate passed bills that never got together. The Senate used to pass general aid to education bills for years, and the House could never get one out of its Rules Committee, and then it could never pass one.

It should also be said on the record, Bob, and Bill, that this committee had absolutely nothing, nor any member of the committee, to do with writing the education provisions of Gramm-Latta in 1981. Indeed, I don't think very many members of Congress had anything to do with it. I believe it was patched up and pasted up in the middle of the night over at OMB, and everybody tried to read it. You've seen it, and it's about that thick; but we found all sorts of things repealed that the people who voted for that certainly didn't want repealed.

One of them was the Taft Institute. They, not once but twice, repealed the Randolph-Sheppard Act that protects the right of the blind people to have the cigarette stands in Federal buildings. Not once, but twice, it was done in that package. I don't know how that was going to balance the budget, but nevertheless, it was done.

We found higher education, after all the effort that went into 1979 and 1980, virtually—not unanimous but overwhelmingly approved by both the House and Senate, just sort of taken all apart. And ever since we've been trying piece by piece to put little pieces of it back.

Now there are those over at OMB who must have these all flagged, because every time they see something coming from us that is trying to put back in place something that was in that masterpiece that they wrote in 1981, they say, well, we thought it was bad then, it must still be bad; and they oppose it.

The history of the Taft Institute in the last 5 years is kind of an interesting example of that. It was killed in 1981 by the budget reconciliation. It was revived by the Senate attaching appropriations provisions to a continuing resolution, and it struggled along like that. Then the administration found it again and sent a rescission over there and said, even though you've appropriated money for this, we want to rescind that appropriation, and both the House and the Senate said no, we were serious about it and we meant it. It interestingly has had—continued to enjoy strong support in the House and the Senate, in spite of what one might not expect to be the impetus coming from the present administration. Why it strikes anybody over there so strong that this kind of an activity should be interrupted is hard for me to fathom.

Maybe they don't like the people you have as speakers at your programs. But I'm sure that this committee is going to look very favorably at continuation of the authorization, and I'm absolutely confident that you won't have much trouble on the other side either. On this kind of an issue, I think the House and Senate committees are very compatible, and on this kind of an issue you'll find the Democrats and Republicans very compatible.

Indeed, you won't find very many of the issues in all of the reauthorization that you can put a Democratic or Republican twist on, as you try to deal with them. We get a little interference from the budget people from time to time, but not from the party leadership of either side over here, and I don't think they have that problem on the other side.

So I am optimistic that we will be able to continue it, and I will pitch whenever I can for the idea that if anybody can get even 25 teachers to acknowledge that they've been teaching it wrong and that they don't know as much as they ought to know about it, it will be fine. I carry with me so many little remembrances, but one that sticks out as I listen to you talk about what the teachers said to you this summer, was a lady who saw me with a button on at a teacher's organization Christmas reception.

I had a button for one of the candidates for President on, a very little gold button. She said, what is that? I said, that's my candidate, and I guess yours, too, since your organization has endorsed him. And she says, not my candidate, I don't vote. I said, oh, you don't vote? No. She says, I think it's a waste of time, because I don't think that one person makes any difference at all and the political parties have it all cut and dried anyhow. So it doesn't make any difference what people do.

I didn't feel I wanted to argue with her at a Christmas party and started to turn away, when I had a sudden thought. I turned around and said, what do you teach? She said, I'm a high school social studies teacher. That almost spoiled my Christmas. But it's not all that uncommon, and what fascinates me—I spend a lot of time in my district whenever I can going to the high schools and they arrange for me to talk to the government and social studies and economics classes and bring them together, and we do a 45, 50-minute period of question and answers.

Generally, they're asking the questions, although I ask some, too. I find them absolutely fascinating, the most interesting group in the world; because they still have some sense of inquiry when they're asking a question. Their questions are not all rhetorical based on preconceived and fixed notions, unlike going to my Rotary Clubs or chambers of commerce or labor unions or other group.

It frightens me that we have this tremendous opportunity when they are at that age with that kind of opportunity to get the right flavor of what the political process is, and we're not doing enough to intercept it.

People are urging us to strengthen the country by training more math and science teachers. I don't quarrel with that proposition at all, but if we're going to strengthen the country by concentrating all our efforts on math and science teachers and forget altogether about teaching American history and American Government in a meaningful way so that they do indeed understand that Abraham Lincoln wasn't chopping wood one day and President the next, that he was a part and parcel and very active participant in a very involved politicall process that ultimately worked him up to the position that he had when he was selected by a then new political party, and indeed he had to put a Cabinet together with pieces of all kinds of parties. No place in school do I remember hearing any of that, not even in undergraduate school until I got pretty well along and started reading for myself out of interest biographies of people in American history. They took on wholly different dimensions than my textbooks and teachers had given me.

It says to me that, if I had what was for its time considered a reasonable middle class educational opportunity and, according to the President, that was when education was really good, not like. it is today, then something was very much missing. I think we need more of this kind of effort by people who do recognize that having people knowledgeable about how their system works and taking more interest than when CBS projects the winner of an election. They have winners and losers. I have the feeling that most of my constituents regard the political campaign very much like the playoffs leading to the World Series. They're not so much interested in how the game is played as who is going to end up on top, and will you tell me who's going to win the Series.

They start talking about that now, and the series won't be until October; but if you hear people talking about baseball, it's not what happened yesterday or who's pitching well or who's hitting well, although today everybody's excited about Pete Rose. It's who's going to win the Eastern Division, the Western Division, and what do the numbers say. They pick up the newspaper and run to the standings, games won, games lost, percentages and they can figure that all out for you.

They do political campaigns the same way. They don't hear what the candidates are saying. They don't hear any significant difference in political philosophy. They will tell you one looks good on television, another one doesn't, that one seems friendly, the other one doesn't. One seemed confused, and the other one didn't. What did he say? Don't ask them what they said.

Someplace along the line, we've denigrated the importance of learning the very things that your institute is trying to emphasize, and I appreciate the fact that that prestigious name is attached to it. That gives it credibility, so that teachers will want to go home and say they participated in something of worth.

Maybe that's why they're encouraged to come and spend that much time and that much effort.

Mr. **Green**. Mr. Chairman, could I ask to be excused. I'm supposed to be at a markup.

Mr. **Ford**. Yes. Certainty, Bill.

Mr. **Green**. Thank you.

Mr. **Ford**. Mr. Coleman.

Mr. **Coleman**. I understand the chairman's concern about who might be winning the Western Division or the Eastern Division, since Detroit is not doing so well. I'll answer his question. Bill Green thinks the Yankees and the Mets are going to be in it, and I know the Kansas City Royals having beat California last night again will be, in the West.

Ms. Chelstrom, let me ask a question. I'm not that familiar with the institute. How are the teachers selected? Do they have to pay a tuition? Are they already in a training session, and do you come in and provide additional training in the institute for them? How do you select——?

Ms. **Chelstrom**. From our office in New York, we announce the programs to school systems, to every school system in the country. A flier—You have one attached to your materials. Then each university that is selected as a sponsor is required to prepare a brochure with an application form to send to teachers in the State where the program is going to be held.

Teachers are asked questions about their background in political science, about—they must be responsible for treating government, elementary, junior high or high school. Then a choice is made by the people at the universities. Sometimes they have a committee of people. Sometimes it's the director and the codirector.

Mr. **Coleman**. So it's open for all teachers, basically?

Ms. **Chelstrom**. It's open for both public and private school teachers. That's right.

Mr. **Coleman**. Is there a limitation on numbers, so that some people can't participate that may want to?

Ms. **Chelstrom**. That's right. We limit the number to 30, because that's where the teachers have an opportunity for a one-to-one visit with the political people.

Mr. **Coleman**. Would this be just 30, let's say, in the State of Missouri or?

Ms. **Chelstrom**. Yes. If the program is not held in one State, the teachers in the surrounding States are eligible to apply for that program; but a New York teacher would not be eligible anyplace outside of New York, because there is a program in New York. Similarly, the other States where the programs are held. Programs have much greater value in the State where the teacher teaches.

Then you asked about whether the teachers pay. We do ask them for what we call an enrollment contribution. It's determined on a sliding scale based on the cost of tuition. Teachers receive from three to six credits, and this contribution is always less than the cost of one credit. It goes into the preparation of materials that we supply to the programs. But it also makes the teachers much more serious about learning in the program if they have put some money down.

Mr. **Coleman**. Do you have one of these every year in each State?

Ms. **Chelstrom**. We had 25 this past year, and they move around every year. We had several new States this year, first-time States; Alaska and New Mexico and Idaho were among the new States this year. We have just five States where programs have not been conducted. I hope we can touch them all before the next couple of years goes by.

Mr. **Coleman**. Thank you.

Mr. **Ford**. Are those five States scattered around the country, or are they in one particular region?

Ms. **Chelstrom**. They're scattered around the country from California and Idaho, Arizona, New Mexico, to the midpart of the country, Nebraska and Missouri, Louisiana and Mississippi, into the States on the east coast.

We try to have them representative throughout the country each year, so they'll be available to the teachers, to all teachers in the 50 States.

Mr. **Ford**. Thank you. Mr. Hayes.

Mr. **Hayes**. I don't have a copy of the material that you mentioned would be accompanying the data. I'd like very much to have it.

Ms. **Chelstrom**. Yes. We'll make sure that you get it.

Mr. **Hayes**. There's only one question I would raise, in the interest of time. What was the amount of the money—funds that was received in 1983 and 1985 by the institute? Federal funds.

Ms. **Chelstrom**. So far we have received $335,000 of the $750,000 matching appropriation, and we are just in the process—what's that?

Mr. **Taft**. For 1985.

Ms. **Chelstrom**. For 1985. And we're in the process of preparing our matching gift report to submit to the Department of Education before the end of September.

Mr. **Hayes**. I just want you to know I'm very supportive of the program. I'd just like to know what you got before. You know, we're so cut prone now when it comes to programs.

Ms. **Chelstrom**. Yes.

Mr. **Hayes**. I'm going to watch with interest to see that you did get what you got before, you know.

Ms. **Chelstrom**. We didn't learn, you know, that we had the 1985 appropriation until May when the Congress did not respond to the President's request. So we had just a short time to work on the first part of it, although we were moving ahead with the program for this past summer.

I would just like to make one more comment, that the chairman made about the partisanship of the program, or the bipartisanship. We keep very careful records of the Democrats and the Republicans who participate each year, and you might be interested to know that every year since the programs have been conducted, we always come up with a few more Democrats as speakers at the programs than Republicans.

Mr. **Ford**. There's just more of it.

Ms. CHELSTROM. Excuse me?

Mr. FORD. There's just more of them.

Ms. CHELSTROM. That's right. Well, that's right.

Mr. HAYES. The Senator's influence is very prevalent here on the Hill, and I'm sure if he used it, it will be helpful in getting the appropriations needed.

Mr. FORD. Well, they need a little history over there. Bob, you may know that 2 years ago the Labor Department, on behalf of the administration, was urging another subcommittee of this committee which I sit on to amend the Taft-Hartley Act, and the provision that they want to reverse is one of the provisions that labor objected to most strenuously when the Taft-Hartley Act was passed; because at that time, they thought it worked to their disadvantage, their short term disadvantage.

Now labor very vigorously is defending that provision in Taft-Hartley, and the Labor Department—I don't think, under Brock they will continue that—wanted to go back and reverse Senator Taft. That isn't a long time back in history. There are still people around here that remember that, and it sort of surprises me that we lose track of why we did something that quickly, that a particular department in an administration for a short period of time looks at something and says, well, they didn't know what they were doing back there, and they don't realize the history of the Taft-Hartley Act, how many years it took many people who were on both sides of the issues on that thing to get something together that passed as a law.

That didn't happen overnight. It wasn't a Graham-Latta that just came out of nowhere. It was years and years of effort by people who felt very strongly about it, and we're just supposed to throw it away.

The interesting thing now is the players, the parties at interest, now perceive that provision from exactly opposite points of view. And because of their position, we ought to go back and change it. There's no sense that the tradition of what it was supposed to mean should be respected or continued.

Thus far, neither the Senate committee nor the House committee have been convinced that they want to ever revisit Taft-Hartley. So it just hasn't happened. But they've looked sort of blankly at me from the Labor Department when I say, do you realize what it is you're trying to change here, and that you sound exactly the way George Meany sounded when he was talking about this a long time ago. Are you reading George Meany's speech back to us? Where did you get it?

They are just shocked that you would identify them, of course, with him. Maybe you ought to go read what Senator Taft had to say about it, and you will find that the committee feels as he did at that time, and I have no way of knowing whether people ever thought the changes that have taken place would take place and change the impact of that particular provision. It has to do with the independence of the General Counsel for the National Labor Relations Board, and the Senator wanted an independent counsel who wouldn't be dominated by what had been until then historically a prolabor Board.

Now the Board is perceived to be not prolabor. Some say, antilabor; and that Board wants to get rid of that independent counsel that was a protection against the Board having a particular bias one way or another.

I think it would be helpful if they understood how important it was to try to get that independence in the first place, and not who did it, or why, or who was for it and who was against it. That kind of political consideration doesn't, even here with practicing politicians, get nearly enough attention.

I'm just as guilty as all the rest of them. I legislate to the temper of the moment all too frequently as well. So I'm not throwing stones at somebody that I don't recognize can bounce back at me.

Thank you very much for your presentations.

Mr. TAFT. Thank you.

Ms. CHELSTROM. Thank you.

Mr. FORD. The next panel is Dr. Ellis McCune, president of California State University at Hayward; Gerald Lieberman, professor at Stanford University; Dr. Kenneth Hayes, University of Maine; John Cramer, Georgetown University Law School, speaking on behalf of the American Association of Law Schools; and Dr. John Sandson, dean of the Boston University School of Medicine.

Oh, and Pardon me. The Rev. Edmund Ryan, executive vice president of Canisius College.

Mr. Coleman.

Mr. COLEMAN. Mr. Chairman, I will spare the committee my entire remarks here on graduate education, but I would like to say a few words about H.R. 2199. H.R. 2199 is legislation which I have introduced in the area of graduate education. Perhaps some of the panel members might want to address or comment on the legislation in their testimony.

H.R. 2199 adds a new part D to title IX of the Higher Education Act. It provides funds on a competitive basis to institutions to set up graduate fellowship programs within specific disciplines of national need, as determined by the Secretary.

Grants would be awarded to exemplary graduate programs in areas of these national needs, and they would be selected by peer review panels of academic experts.

Each institution would develop their own criteria for selecting fellows. Ability will be the primary criteria in the selection process of the fellowships. Each fellowship would be threefold, with students receiving a fellowship for living expenses, and coverage for tuition and fees. The institution would receive a small grant which would enhance the academic department through support of research, instrumentation, library acquisitions, and other support to enhance the resources of that graduate department.

Today's witnesses will detail some of the findings of the National Report on Graduate Education done by the National Commission on Student Financial Assistance. This report which really brings to our attention the problems in graduate education which H.R. 2199 is trying to address. The number of Federal fellowships, has dramatically declined from 60,000 to 12,000 in the last 15, 16 years. This is a dramatic indication of how we've let this area slide.

I would like to extend a special welcome to Dr. Gerald Lieberman from Stanford University who will address H.R. 2199 in his remarks, I'd also like to recognize Mr. Cramer who is an old associate from the Agriculture Committee sneaking in under the guise of a law school representative this morning.

Thank you.

[The opening statement of E. Thomas Coleman follows:]

OPENING STATEMENT OF HON. E. THOMAS COLEMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mr. Chairman, today's hearing begins our first public discussion on graduate education in the context of reauthorization of the Higher Education Act. As we go about reauthorizing the Act we will attempt to redefine the Act in certain areas to reflect current trends and needs in higher education through the 1990's. One such area in need of attention is graduate education.

The existence of a strong graduate education enterprise is critical to our nation. The federal government has long since recognized the central role that university programs play in research as a means of meeting our national goals. Recent achievements in medicine and biomedical research, in space exploration and in the information technology offer compelling evidence of the benefits to our society of educational investments in our graduate enterprise.

The successful launching of Sputnick in 1957 generated an expanded federal commitment to graduate education programs. The success during the late 60's and early 70's of the NSF and NDEA fellowship programs in attracting large numbers of talented students has been well documented. Over the past fifteen years federal support for graduate fellowships has sharply declined. From 1969 to 1981, federally funded graduate fellowship have fallen from 60,000 to approximately 12,800. The reduction in these fellowship programs have contributed to an equally well documented national decline in both graduate enrollment and the quality of graduate education. The 1983 report of the Graduate Education Subcommittee of the National Commission on Student Financial Assistance provided us with compelling evidence of both the importance of graduate education to the nation and the serious problems confronting it.

Decline in support for graduate education has created a situation where students must increasingly depend on loans to finance their education. Many of these students already burdened with substantial debts from undergraduate education and facing additional years of foregone income, must give undue emphasis to expected earnings in making a career choice and, as a consequence, are swayed away from pursuing academic and research careers.

Immediate steps must be taken to avoid continuing declines in both the enrollment and quality of our graduate enterprise.

Accordingly, I have introduced H.R. 2199, legislation which adds a new part D to Title IX of the Higher Education Act. This proposal provides funds on a competitive basis to institutions to set up graduate fellowship programs within specific disciplines of national need. The legislation would award grants to exemplary graduate programs in areas of national need. Awards will be based on the recommendation of peer review panels of academic experts.

Institutions would develop their own criteria for selecting fellows, ability will be the primary criteria in the selection process. Each fellowship would be three-fold, students would receive: (1) a fellowship award for living expenses; (2) tuition and fees; and the institution would receive (3) a small grant to enhance the academic department through support of research instrumentation, library acquisitions, and other support to enhance the resources of graduate department.

I believe that a program of merit fellowships underwritten by the federal government can provide a much needed signal of national priority on the worthiness of graduate education. It further can provide an incentive for talented undergraduates to pursue their true academic interests and abilities.

I encourage my colleagues to join me in supporting the inclusion of H.R. 2199 in the reauthorization of the Higher Education Act. It is a modest proposal which, if enacted could richly repay our nation in critical new knowledge and talent.

I look forward to the testimony from today's witnesses and thank them for the efforts they put forward to be with us today, I would like to express a special welcome to Dr. Gerald Lieberman from Stanford University. Dr. Lieberman will focus his comments on the proposal contained in H.R. 2199.

Mr. FORD. Thank you. I suppose I ought to try to get a plug in here for H.R. 6379 which I introduced toward the end of the last

Congress, did not reintroduce in this Congress because I have not introduced any higher education legislation in anticipation of this reauthorization. I didn't want to cause any confusion. We're trying to go in the same direction, except that H.R. 6379 is not as targeted and is really basically an SEOD Program for graduate students with such sums, Tom. I couldn't come up with a number either. It's a hunting license to go to the Appropriations Committee with, and maybe we can get these together some way and find a place for them in reauthorization.

We start first with Dr. McCune.

Mr. McCune. Thank you, Mr. Chairman.

Mr. Ford. Without objection, the prepared statements each of the witnesses present will be inserted in full in the record immediately preceding that point where they begin their remarks.

STATEMENT OF DR. ELLIS McCUNE, PRESIDENT, CALIFORNIA STATE UNIVERSITY, HAYWARD

Mr. McCune. Mr. Chairman, members. I'm Ellis McCune, president of California State University at Hayward. I'm speaking to you today on behalf of the 19 campuses of the California State University, as well as the American Association of State Colleges and Universities.

Our system has over 300,000 students and, as such, is the largest system of senior institutions in the United States. Like most of the 360 or so members of the—of AASCU, the American Association of State Colleges and Universities, we emphasize not doctoral programs but bachelor's and master's programs. Nationally, there are almost 300,000, about 295,000, master's degrees awarded each year, which is about 9 times the number of doctoral degrees that are awarded each year. Of that number, the California State University system awards some 9,500 degrees, or about 3 percent of the total.

Comprehensive public institutions of this kind, the kind I represent, are a major segment of American higher education. We enroll almost one-third of all senior college students in the United States and, as a result, our role is both quantitatively very large and qualitatively very significant; but it is a role that's different from that of the doctoral institutions.

I think that the program, the graduate program, in our 19 campus system is probably typical of the other comprehensive institutions in a number of respects: First, we deal not only with part-time—with full-time graduate students, as do most doctoral institutions, but we deal with large numbers of part-time graduate students. We enroll not only young students, the traditional college age students, but many older students. We serve students who are confined to a particular area unable to move to another area for graduate work, as well as those who do move around. And we enroll both students who are intending to go on for further graduate study with doctoral programs and students who find the master's degree a final objective or qualification for professional position.

Our graduate students are both men and women, but increasingly these days they are women. Some 57 percent of master's degree recipients in our system currently are women. We supply a very large share of California's master's degree holders in the profession of business and in professions such as architecture and the health professions and public administration and city planning, engineering, as well as many others.

We also, through the master's degree, prepare large numbers of community college teachers, high school counselors and other school personnel. Because costs to students are very low in our institutions and part-time study is possible, both things that separate us from other kinds of institutions, we make education and careers accessible to many students who could afford no other alternative.

In the California State University, we manage to do this while maintaining rather rigorous graduate admissions standards. Attached to my prepared statement is some information about the size and scope of our program, which gives some details about this.

If you were to visit our graduate science labs or sit in on some of our seminars, you would not find much to distinguish this from many doctoral institutions. We offer programs in more than 115 discrete subject matter areas, but that's really only one aspect of our program. It's in a relative emphasts that we are different from the doctoral institutions.

Nearly half of the degrees we award at the graduate level are in business and in education. Nationally, the percentage of degrees awarded in those two areas is more than half. Education alone represents about a third of our total production. So we are involved in a very significant way in the future of the public schools and, through the business graduates, we're also significantly involved in the Nation's business enterprise.

Generally speaking, anything that your committee and the Congress does to strengthen graduate education will strengthen us in these areas as well; but the impact of strengthening graduate education goes a long way beyond its impact on research. The point I am trying to illustrate is that it has an impact on our business offices, on our schools, city planning, architects, engineers, artists, and others, through the master's programs at institutions such as mine offer.

Many of these professions are accessible only to people with master's degrees. For that reason, we are deeply concerned about our failure, and in fact the failure of the Nation as a whole, to engage more minority students from underrepresented minorities in graduate study.

Minority underrepresentation in graduate study is not only going to result in a shortage of minority scholars, it's going to result in shortages of minority professionals in fields that require master's degree preparation. California State University recently introduced a Minority Graduate Fellowship Program, hoping to reduce students' need to borrow, but this is a very meager beginning.

We think that programs that are designed to encourage or assist talented undergraduate students, particularly those from underrepresented minority groups, to complete a baccalaureate degree and become eligible for graduate study are an essential first step. It's a pipeline problem. Unless the students finish high school, complete a baccalaureate, they are not going to be in graduate programs.

The Undergraduate Biomedical Sciences Program in current law and others like it have been quite successful in our system, and they've played an important role, we think, in inducting undergraduate minority students into research and scholarly careers. Many of those students have gone on to doctoral study elsewhere.

We think about how to increase the numbers and percentages of minority graduate students. We have to think about increasing the number who start undergraduate study and, furthermore, complete bachelor's degrees and, thereby, become eligible for graduate work.

Large, urban public universities play a crucial role in this effort. We would welcome expansion of the Minority Biomedical Program concept to other fields, and also additional support for minority students once they're enrolled in graduate study.

Let me conclude with a very different aspect of our concern about the health of graduate programs. California State University employs more than 10,000 full-time tenured and probationary faculty. The percent with doctoral degrees ranges from 65 to 90 at the various campuses. Like most institutions, we hired vast numbers of people in the sixties and seventies, and those are going to be retiring in a few years. We're going to be replacing very large numbers in the next decade.

We are completely dependent on the quality and the competence of the people who are produced by the doctoral institutions. There must, therefore, for us to succeed in producing students at the master's level and the baccalaureate level, be a national pool of high quality, well education talent among doctoral degree holders, and that pool has to include women and minority members in appropriate numbers.

Federal policy is going to have a great impact on the existence of such a resource and on the future quality of instruction and scholarship in the California State University and the institutions that it typifies.

Members of the Committee on Education and Labor and others in the House of Representatives have long demonstrated an admirable understanding of the importance of developing the Nation's talent. Your support is very much appreciated.

I thank you for the opportunity to testify, and would be pleased to respond to any questions.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Ellis E. McCune follows:]

PREPARED STATEMENT OF DR. ELLIS E. MCCUNE, PRESIDENT, CALIFORNIA STATE UNIVERSITY

I am Ellis E. McCune, President of California State University, Hayward. I am speaking today on behalf of the 19 campuses of The California State University and on behalf of the American Association of State Colleges and Universities.

The California State University, with over 300,000 students, is the largest system of senior universities in the country. Like most of the more than 360 Universities and Colleges that are members of the American Association of State Colleges and Universities, our emphasis is not on doctoral programs but on bachelor's and master's degrees. Nationally, around 295,000 master's degrees are awarded annually. This is almost nine times the level of doctoral degree production. The California State University awards around 9,500 master's degrees a year, which is over 3 percent of the nation's master's degrees.

Comprehensive public colleges of the kind I represent constitute a major segment of American higher education. In 1982, these institutions enrolled almost one third of all senior college students. As a result, our role at the master's degree level is numerically large and qualitatively significant—but it is somewhat different from the role of doctoral institutions.

The graduate program of the 19-campus California State University is, I believe, typical of other comprehensive institutions in several respects: it appeals to both part time and full time graduate students; it enrolls older students as well as young students; it serves students who are confined to a particular geographic location and also those who are not; and it enrolls students who are completing professional master's degrees as well as those who plan to continue elsewhere in advanced graduate study. Our graduate students are men and women, but increasingly they are women—now at the rate of 57 percent of our master's degree recipients. We supply a large share of the State's master's degree holders in Business, Architecture, Health Professions, Public Administration, City Planning, and Engineering. By awarding the master's degree, we prepare large numbers of Community College teachers, school counselors and other school personnel. Because costs to students are low and part time study is possible, we make education and careers accessible to students who could afford no other alternative. In the California State University, we manage to do this while maintaining rigorous admission standards. You will find some detailed information about the size and scope of our program in the attachment to this testimony.

If you were to visit some of our graduate science labs or sit in on our seminars, you would observe that the intensity and quality of scholarship and research does not distinguish us from many doctoral institutions. Although The California State University offers master's programs in more than 115 discrete subject areas, this is only one aspect of our graduate program. It is in our relative emphasis that we are different from most doctoral institutions.

Nearly half of the graduate degrees we award are in Business and Education. Nationally, the percentage is more than half. Education alone represents around one third of our total master's degree production. We are involved in a significant way in the future of the public schools, and through our business graduates we are also significantly involved in the nation's business enterprise. Generally speaking, anything that is done to strengthen graduate education will strengthen us in these areas. But the impact of strengthening graduate education goes far beyond its impact on research: it reaches our nation's business offices, its schools, its city planning offices, its architects, artists, engineers, and more.

Because many of these professions are accessible only to those with a master's degree, we are doubly concerned about our failure—and the nation's failure—to engage increasing numbers of minority students in graduate study. Minority underrepresentation in graduate programs will not only result in a shortage of minority scholars—it will result in shortages of minority professionals in those fields that require master's degree preparation. The California State University recently introduced a Minority Graduate Fellowship Program, hoping to reduce students' need to borrow. But this is a meager beginning.

Programs designed to encourage talented undergraduate students to complete their baccalaureate degree and become eligible for graduate study are an important first step. The undergraduate biomedical sciences program and others like it have been successful in The California State University, and we have played an important role in inducting undergraduate minority students into research and scholarly careers. Many have continued in doctoral study elsewhere. As we consider how to increase the number and percentage of minority graduate students, we must begin by increasing the number who, having started undergraduate study, remain to complete their bachelor's degrees and thereby become eligible for and interested in graduate study. Large, urban public and universities play a crucial role in this effort. We would welcome expansion of the minority biomedical program concept to other fields, and we would welcome additional support for minority students once they are enrolled in graduate study.

Let me conclude with a very different aspect of our concern about the health of the nation's graduate enterprise. The California State University employs more than 10,000 full time tenured and probationary faculty. The percent with doctoral degrees ranges from 65 to 90 at the various campuses. Our enterprise is finally and utterly dependent on their competence, the quality of their education, and their commitment. As we begin replacing the large numbers who will be retiring over the coming decade, we will be highly dependent on the existence of a national pool of high quality, well educated talent, and that pool must include women and ethnic minorities in appropriate numbers. Federal policy will have a considerable impact on the existence of such a resource and on the future quality of instruction and scholarship in The California State University and the institutions that it typifies.

Members of the Committee on Education and Labor, and others in the House of Representatives, have long demonstrated an admirable understanding of the importance of developing the nation's talent. Your support is very much appreciated. I thank you for the opportunity to testify and I will be pleased to respond to any questions.

PROFILE OF THE CALIFORNIA STATE UNIVERSITY GRADUATE PROGRAM

[Number of Campuses: 19]

Discipline category	Number of master's degree subjects (excluding duplication)	Number of master's degree programs	Master's awarded 1983–94	
			Men	Women
Agriculture and natural resources	3	6	94	32
Architecture and environmental design	6	8	60	27
Area studies	3	7	3	11
Biological sciences	5	25	129	98
Business and Management	7	43	980	544
Communications	5	9	32	44
Computer and information sciences	2	10	118	82
Education	10	62	865	2,247
Engineering	10	28	456	34
Fine and applied arts	6	48	171	204
Foreign languages	6	26	18	48
Health professions	10	37	111	586
Home economics	4	13	6	136
Letters	9	44	173	299
Library science	1	1	8	47
Mathematics	3	17	40	23
Physical sciences	8	34	120	35
Psychology	2	27	178	318
Public affairs and services	7	34	299	459
Social sciences	16	77	198	157
Interdisciplinary studies	6	37	56	68
Total	129	593	4,115	5,499

FALL 1984 ENROLLMENT

[Percent distribution by ethnic category]

	Post-baccalaureate (includes teaching credentials)	Master's degree objective
American Indian	0.9	1.2
Asian	7.9	9.0
Black, non-Hispanic	5.1	4.4
Filipino	.9	.8
Mexican-American	5.7	3.9
Other Hispanic	2.5	2.5
Pacific Islander	.3	.3
White, non-Hispanic	76.7	77.9
Subtotal (number)	25,450	25,051
Unknown	(12.6)	(12.5)
Nonresident alien	(1.9)	(6.0)
Total (number)	29,185	29,981

Mr. FORD. Thank you. Mr. Lieberman.

STATEMENT OF GERALD J. LIEBERMAN, PROFESSOR, STANFORD UNIVERSITY

Mr. **Lieberman**. Mr. Chairman, members of the subcommittee, I'm Gerald J. Lieberman. I'm a professor of operations research and statistics at Stanford University. For the past 5 years, and indeed until September 1 of this month, I served as Stanford's vice provost and dean of graduate studies and research, and in this capacity I was responsible for policy issues related to graduate education at Stanford.

I am pleased to appear before you to testify on H.R. 2199, a bill proposed by Mr. Coleman that would provide a new part D to title IX of the Higher Education Act, Graduate Assistance in Areas of National Need.

Let me point out that this bill has wide support in the academic community. It has the joint support of the three associations concerned with graduate education, as well as the American Council on Education.

Others who will be appearing before you today will present arguments for the importance of graduate education for the Nation. Therefore, I will state in summary only my view that graduate education is of central importance to such areas of national concern as health, economic competitiveness, and national security. Furthermore, I want to stress that its importance will increase as we move into the 21st century, because it's the source of advanced education for the Nation's college teachers, scientists, and scholars, and it is an inextricable component of the fundamental research conducted in research universities.

Because of its importance to this country, we should be concerned about reports of problems developing within the graduate education enterprise. Over the last 15 years, while the costs of graduate education have risen steadily, the available support and indeed the levels of support for graduate students has declined. Federal-funded fellowships and traineeships have declined from approximately 60,000 in 1969 to less than 13,000 in 1981. Furthermore, the proportion of postbaccalaureate student aid from all sources, Federal and State governments, institutions, and private sources, provided as loans increased from roughly 15 percent in 1974 to nearly 50 percent in 1984. In other words, there's a shift from grants to loans.

In addition to a decline in financial support for graduate students, the problem of obsolete instrumentation and facilities poses serious problems for graduate programs. This problem is so acute at a place like Stanford that almost all of the discretionary funds that are available to me for seeding new research was basically spent on new instrumentation. These are previous funds, because the purpose of them was to enable our research faculty to think about new areas that they wanted to get into and support them and their graduate students for a period until they could go out and seek outside sources.

I found that the pleas for new instrumentation were so important that we decided that we would spend most of our money in this way. I might also add that the issue of facilities is one that is terribly important to us, and that in our forthcoming centennial drive we hope to raise funds of the magnitude of about $250 million for building of a new science and engineering quadrangle, again feeling that this is essential if we are going to survive as a serious research institution.

Let me point out that I believe that a key element that has enabled the United States to maintain its technological leadership has been the success of fundamental research programs that have taken place in our research universities. The unique characteristic of these research programs is the interaction that takes place between the faculty and their graduate students working in adequate research facilities. This is unique to this country, I believe.

Evidence is now mounting that this formula seems to be breaking down. Consequences of this worsening condition are beginning to show. There is increasing evidence that in some fields we are failing to attract as many highly talented students into graduate education as we did, say, 15 years ago. In other fields, we're not producing the number of doctoral recipients that we need or are going to need in the very near future.

The Coleman bill would effectively address both the qualitative and quantitative problems confronting graduate education and its impact on science and technology. The bill would authorize the Department of Education to award grants to graduate departments in areas of national need. Grants would be awarded on the merits of competing proposals as judged by panels of nationally recognized academic experts.

Graduate departments would use the funds to provide talented students with up to 3 years of fellowship support. A portion of grant funds could be used by departments for improvement in program quality through such activities as acquisition of research instrumentation—as I indicated, very, very much a need—and support of research projects of the fellowship recipients.

Let me list five major characteristics of the bill that, in my judgment, make it an excellent mechanism for the support of graduate education.

First, it provides a source of support that helps reduce the imbalance of Federal loans over grants, and thereby helps to reduce the financial disincentives to pursue graduate education.

It allocates funds competitively, based on the judgments of academic experts, and the unit of competition is an individual department or graduate program. I think this is important.

The quality of individual departments on a single campus can vary. This provision will allow judgments of excellence to be tied to the organizational unit on which this dimension of graduate education varies, and it would permit a substantial number of institutions with pockets of excellence at the graduate level to compete effectively.

I think that this is very, very useful, because I think you find that throughout the country, that one doesn't talk about excellence overall at any university; that universities have departments, have programs that themselves are really peaks of excellence, whereas the entire university may not fit that particular model.

Third, the criteria for judging proposals include the specification of procedures for seeking talented students from groups underrepresented in graduate education. Increasing the participation by students from underrepresented minority groups is of paramount importance for the future vitality of graduate education.

Fourth, grants will be made for 3 years, providing an important measure of stability and predictability in student support. It's not going to be turned off fairly quickly.

Finally, grants require a 25-percent match from non-Federal funds. This will leverage Federal dollar to extend graduate student support.

Now that I've said all these nice things about the bill, I do think that some modifications could perhaps make it more effective in achieving what I take to be its principle objective of strengthening our national graduate education capacity in areas of perceived national need.

Let me preface my comments by saying that I'm happy with the bill as it's now written, and it certainly has my full support; and the suggestions that I'm going to offer is in the spirit of perfecting amendments.

First, let me suggest that only Ph.D. granting departments or programs in areas of national need be considered. I think there's a strong correlation between excellence of departments and their granting of a doctoral degree. Furthermore, students who are going to pursue a career in teaching or research generally need to complete a Ph.D. program.

Second, I'd like to eliminate the $10,000 cap on stipends that the bill proposes. Indeed, the stipends now provided by the National Science Foundation for a program with somewhat similar objectives are going to be $11,100 this year. Moreover, this bill establishes program policies extending to 1990 or beyond, and I think that the provision that stipends cannot exceed an institution's determination of financial need is ample to see that no student acquires excessive wealth through this program.

I want to reiterate that I believe these changes that I've just made would improve the current legislation, but only modestly. As I indicated, the bill as written is an excellent piece of legislation that will effectively address several problems currently confronting those of us whose business it is to make this Nation's graduate education as high in quality and rich in productivity as possible.

Thank you, Mr. Chairman.

[The prepared statement of Gerald J. Lieberman follows:]

PREPARED STATEMENT OF GERALD J. LIEBERMAN, PROFESSOR, STANFORD UNIVERSITY

Mr. Chairman and members of the Subcommittee, I am Gerald J. Lieberman, a professor of operations research and statistics at Stanford University. For the past five years, until this month, I served as Stanford's Vice Provost and Dean of Graduate Studies and Research. I am pleased to appear before you to testify on H.R. 2199, a bill introduced by Mr. Coleman that would provide a new Part D to Title IX of the Higher Education Act, Graduate Assistance in Areas of National Need.

This bill has wide support in the academic community. It is one of three new programs recommended in the joint reauthorization position on graduate education developed by the Association of American Universities, the Council of Graduate Schools, and the National Association of State Universities and Land-Grant Colleges. As with the other provisions of the AAU/CGS/NASULGC position on graduate education, it has been included in the reauthorization recommendations submitted to this committee by the American Council on Education.

Others who are appearing before you today will present arguments for the importance of graduate education to the nation. I will therefore state in summary only my view that graduate education is of central importance to such areas of national concern as health, economic competitiveness, and national security. Both as the source of advanced education for the nation's college teachers, scientists, and scholars, and as an inextricable component of the fundamental research conducted in research universities, the importance of graduate education will surely increase as we move into the 21st century.

Because of the role graduate education will play in meeting national objectives, we should be concerned about reports of problems developing within the graduate education enterprise. Over the last fifteen years, while the costs of graduate education have steadily risen, the available support for graduate students has declined considerably. The number of federally funded fellowships and traineeships declined from approximately 60,000 in 1969 to less than 13,000 in 1981. The proportion of postbaccalaureate student aid from all sources—federal and state governments, institutions, and private sources—provided as loans increased from roughly 15 percent in 1974 to nearly 50 percent in 1984.

In addition to a decline in financial support for graduate students, obsolete instrumentation and facilities poses serious problems for graduate programs. This problem is so acute at Stanford that almost all of the discretionary funds that were available to me for seeding new research was spent on new instrumentation. Furthermore, a cornerstone of our forthcoming centennial drive will be raising funds (approximately $250 million) for building a new science and engineering quadrangle. That will be a difficult task, but it must be accomplished to sustain the quality of our graduate education and research programs.

A key element that has enabled the United States to maintain its scientific and technological leadership has been the success of the fundamental research programs carried out at our research universities. The unique characteristic of these research programs is the interaction that takes place between the faculty and graduate students working in adequate research facilities. Both education and research are improved by this interaction.

This formula is breaking down, and the consequences of this worsening condition are beginning to show. There is increasing evidence that in some fields, we are failing to attract as many highly talented students into graduate education as we did fifteen years ago. In other fields we are not producing the numbers of doctoral recipients that we need.

The Coleman bill would effectively address both the qualitative and quantitative problems confronting graduate education, which are extending in their impact to our national capacity in science and technology. The bill would authorize the Department of Education to award grants to graduate departments in areas of national need. Grants would be awarded based on the merits of competing proposals as judged by panels of nationally recognized academic experts. Graduate departments would use the funds to provide talented students with up to three years of fellowship support. A portion of grant funds could be used by departments for improvement in program quality through such activities as acquisition of research instrumentation and support of research projects conducted by fellowship recipients.

I would like to list some of the characteristics of the bill that in my judgment make it an excellent mechanism for the support of graduate education:

It provides a source of support that helps reduce the imbalance of federal loans over grants and thereby helps to reduce the financial disincentives to pursue graduate education.

It allocates funds competitively, based on the judgments of academic experts, providing a mechanism for proven, productive departments to recruit highly promising students, thereby assuring that funds will be used effectively.

The unit of competition is an individual department or graduate program. The quality of individual departments on a single campus can vary considerably; this provision will allow judgments of excellence to be tied to the organizational unit on which this dimension of graduate education varies, and it will permit a substantial number of institutions with pockets of excellence at the graduate level to compete successfully.

Grant funds are to be used to support students with exceptional promise, who intend to pursue the highest degree available to their field, and who plan careers in teaching and research; thus, the students supported will be highly talented persons whose intended careers will keep them productively involved in the creation and dissemination of new knowledge in areas of national importance.

The criteria for judging proposals include the specification of procedures for seeking talented students from groups underrepresented in graduate education; increasing the participation by students from underrepresented minority groups is of paramount importance for the future vitality of graduate education.

In determining areas of national need in which grants will be made, the Department will consult with the National Science Foundation, the National Academy of Sciences, the National Endowments for the Arts and the Humanities, and other federal and nonprofit agencies and organizations; this will provide expert advice on the selection of fields and will assure coordination with federal programs supporting other aspects of postbaccalaureate education.

Grants will be made for three years, providing an important measure of stability and predictability in student support.

Grants require a 25% match from nonfederal funds, leveraging federal dollars to extend graduate schools support.

Modification of some provisions of the bill would, I believe, make it even more effective in achieving what I take to be its principal objective of strengthening our national graduate education capacity in areas of perceived national need. I preface my comments on these provisions by stating that the bill as written has my full support; I offer my suggestions in the spirit of "perfecting amendments."

First, I would suggest that only Ph.D. granting departments or programs in areas of national need be considered. There is a strong correlation between excellence of departments and their granting of a doctoral degree. Further, students who are to pursue careers in teaching and research need to complete a Ph.D program.

Second, I would eliminate the $10,000 cap on stipends. The stipends now provided by the National Science Foundation for a program with similar objectives are $11,100. Moreover, this bill establishes program policies extending to 1990 or beyond. The provision that stipends cannot exceed an institution's determination of financial need is sufficient to assure that no student acquires excessive wealth through this program.

I believe these changes would improve the current legislation. As I indicated above, however, the bill as written is an excellent piece of legislation that will effectively address several problems currently confronting those of us whose business it is to make this nation's graduate education as high in quality and rich in productivity as possible.

Mr. FORD. Mr. McKernan.

Mr. McKERNAN. Thank you, Mr. Chairman. It's my pleasure to introduce our next speaker, even though he and I are on opposite sides of the aisle, somebody that I have long respected for his expertise in education.

Ken Hayes has served in the Maine State Senate, and has chaired the Senate Education Committee. He's somebody that, I'm sure, has a lot to offer to this discussion. I want to welcome him to our Nation's Capital.

Ken.

STATEMENT OF DR. KENNETH P. HAYES, UNIVERSITY OF MAINE

Mr. HAYES. Thank you.

Mr. Chairman and members of the committee, my name is Kenety Hayes. I'm speaking as a member of the National Education Association [NEA], representing 1.7 million public school teachers, higher education faculty, and education support personnel. I'm also on the graduate faculty in political science at the University of Maine at Orono. I have served as senate chair of the joint standing committee on education in that State.

Recently, I have been on the Governor's commission on the status of education in Maine, and I'm currently a member of the New England Board of Higher Education.

I am pleased to have this opportunity to represent NEA's views on the reauthorization of title IX, the Higher Education Act. NEA has long been concerned with the soundness of our Nation's graduate programs, and the opportunity for access to these programs of all qualified people. We are very much concerned, however; that women and members of minority groups have yet to achieve adequate representation within graduate programs.

For example, the 1983 report of the National Commission on Student Financial Assistance, "Signs of Trouble and Erosion: A Report on Graduate Education in America" reports: "* * * of the 31,000 doctorates granted by American universities in 1982, black Americans received only 3 percent, with Mexican Americans, Puerto Ricans, and Native Americans each receiving less than 1 percent."

These increased demands on postsecondary education, however, are seriously affected by cutbacks in student financial aid, a decrease in assistance to our research and training institutions, severe shortages of highly trained people in critical—areas of critical importance to our national interest, and difficulties in maintaining high quality faculty. The bottom line is this: At a time when our institutions are having increased demands made on their graduate programs, their research facilities are deteriorating, their library funds are shrinking, and their operational costs are soaring.

Clearly, the results of these stresses on our institutions of higher education do place our Nation at risk. It is simply not in our interest in a global society to allow a reduction in the development of knowledge and scholarly research, a reduction of our position in science, technology and cultural development, and a misuse or nonuse of our human resources.

We strongly believe the Federal Government has a clear role to play in helping to keep our graduate institutions healthy. We urge the members of this subcommittee to seriously consider the responsibility of the Federal Government to help ensure access to graduate education to more talented students, in particular, those students whose economic status might otherwise prevent their attendance.

It is fundamentally unfair to make money the sole deciding factor between those who can attend graduate education and those who cannot.

Specifically, we urge that title IX of the Higher Education Act provide aid to minority and women students who may otherwise be discouraged from continuing their education. NEA believes that retargeting part A of title IX of the act to promote recruitment and support of minority students in programs of graduate study where they are underrepresented is important.

NEA also urges that part B of title IX authorizes fellowships for graduate and professional study specifically targeted to women and minorities who are underrepresented in various fields such as the hard sciences.

We also recommend continuation of part C of the National Graduate Fellowships Program for study in the arts, humanities and social sciences.

NEA believes that the creation of a new program of grants to graduate students based on financial need is imperative. We testified on numerous occasions of the need to improve services and availability of funding for undergraduate students under the Pell Grant Program. But NEA does not believe that opening up Pell grants to first and second year graduate students offers a comprehensive solution to their assistance needs.

Rather, our Nation's long-term interests and the needs of graduate programs are best served by creating a special graduate assistance program.

NEA further recommends that the fund for the improvement of postsecondary education authorized under title X of the act include in its purview improving and expanding the opportunities available for faculty development at both the graduate and undergraduate levels of higher education institutions.

Finally, let me mention an issue which, although it is not within the direct jurisdiction of this committee, is a matter relevant to the health of graduate education. The administration has proposed taxing that portion of research and teaching fellowships and scholarships used for living expenses for those who are engaged in full time study. Disallowing the tax exempt status of these fellowships would only be another disincentive for talented graduate students to continue their studies.

Mr. Chairman and members of the subcommittee, NEA wishes to express its appreciation for this opportunity to present our views on such a timely and vital topic as our graduate education programs. We stand ready to continue to work with Members of Congress and this committee in the reauthorization of the Higher Education Act.

I thank you, and I welcome any questions.

[The prepared statement of Dr. Kenneth P. Hayes follows:]

PREPARED STATEMENT OF DR. KENNETH P. HAYES ON BEHALF OF THE NATIONAL EDUCATION ASSOCIATION

Mr. Chairman and Members of the Subcommittee:

Mr. name is Kenneth Hayes. I am a member of the National Education Association (NEA) with 1.7 million members who are this nation's public school teachers, higher education faculty, and education support personnel, and I serve on the graduate faculty in political science at the University of Maine's Orono campus. I formerly served as chair of the Maine State Senate Education Committee and of the Governor's Commission on the Status of Education. I am also currently a member of the New England Board of Higher Education.

I am pleased to have this opportunity to present our views on the reauthorization of the Higher Education Act, in particular, as it relates to graduate level education in the United States.

As representatives of professional educators in our secondary schools and post-secondary institutions, NEA has long been concerned with the soundness of our nation's graduate studies programs. As believers in continuing education, we see graduate training not only as a vital professional issue for our own members, but also as an issue affecting the lives of millions of Americans.

As *NEA* has long supported equality of access to education for all our young, so too do we support the access of *all* qualified students who seek graduate level training. In particular, we believe that efforts must continue to be made to open up graduate programs in our institutions of higher education to minorities, women, and non-traditional students. Our nation's undergraduate institutions are filling with non-traditional students—those who may be older; those who are of color; those who are in significant financial need; those who are first generation college students; those who mix school and employment; those who are returning to school for retraining or advanced learning; those women who are displaced homemakers, single heads of households, widowed, or divorced; and those from new immigrant populations. And many of these same students aspire to attain graduate degrees. Therefore, it is increasingly critical that we develop public policy that will attempt to meet the needs of this special segment of our student population.

GRADUATE TRAINING—PROGRESS FOR OUR NATION AND THE WORLD

High level education for our nation's best minds has a practical and ongoing benefit not only for our country, but for the world. Highly trained scientists and scholars have contributed in untold ways to our economic and social well-being. Breakthroughs in our universities have led to improved health care and a better life for millions. In addition, access to high level graduate training for many thousands of American students has been instrumental in fueling and maintaining our nation's economic growth and our international competitiveness for several decades.

Federal support for graduate programs through direct assistance to the nation's universities and colleges, and financial aid to our students has played an important part in keeping American graduate education the best in the world.

The federal government has been particularly important in the past several decades in helping minorities and women gain entry into graduate education programs and, consequently, to high level jobs in industry, government, and higher education. Despite modest gains, women and members of minority groups have yet to achieve adequate representation within graduate programs. For example, according to the 1983 report of the National Commission on Student Financial Assistance, "Signs of Trouble and Erosion: A Report on Graduate Education in America,": "...of the 31,000 doctorates granted by American universities in 1982, black Americans received only three percent, with Mexican Americans, Puerto Ricans, and Native Americans each receiving less than one percent."

Now, with cutbacks in student financial aid, we are seeing fewer and fewer undergraduate students able or willing to take on the increased burden that unsubsidized graduate study can bring. Not only does this limit career opportunities to many worthy students, but it also denies our society the potential services of such students with advanced education in many needed areas. Often, because of high debts incurred for graduate level training, more and more students are choosing career tracks offering lucrative wages and security rather than those requiring several years of costly advanced study. NEA believes that this is not always in the best interest of our nation or these individuals.

In addition, because of financial aid cutbacks and a decrease in assistance to our research and training institutions, we are currently suffering severe shortages of highly trained people in areas critical to our national interest. Among these are teaching, physics, engineering, foreign languages, and history. We are finding difficulties in maintaining high quality faculty in fields of high demand. Quite often those who would choose an academic career are being lured away by lucrative salaries in private industry. At a time when our institutions with graduate programs have increased demands made on them, their research facilities are deteriorating, their library collections are shrinking, and their operational costs are soaring.

Clearly, Mr. Chairman, and Members of the Subcommittee, the results of these stresses on our institutions of higher education will have long-term negative effects on our society. They will lead to a reduction in the development of knowledge and scholarly research, slow our gains in science, technology, and cultural development, and prevent the wise use of our human resources. At a time when our society is becoming increasingly complex, we must not let this trend continue.

FEDERAL ROLE IN GRADUATE EDUCATION CRITICAL

The federal government has a clear partnership role to play in helping to keep our graduate institutions healthy.

We at NEA urge the Members of this Subcommittee to seriously consider the need for the federal government to help insure access to graduate education to more talented students, in particular those students whose economic status might otherwise prevent their attendance. It is fundamentally unfair to make money the sole deciding factor between those who can attend graduate education and those who cannot. As 'Signs of Trouble and Erosion,' clearly stated: "...we are surely foolish to tolerate a loss of talent to the nation from any significant portion of the population. That (minority) segment is large and growing. By 1990, according to Commission consultant Harold Hodgkinson, minorities will constitute up to 25 percent of our total population and up to 30 percent of our youth. In some states, particularly Texas and Florida, minorities will approach 45 percent of the youth population."

Specifically, Mr. Chairman and Members of the Subcommittee, we urge that Title IX of the Higher Education Act bolster efforts to aid minority and women students who may otherwise be discouraged from continuing their education. NEA believes that retargeting Part A of Title IX of the Act to promote recruitment and support of minority students in programs of graduate study where they are underrepresented is important.

NEA also urges that Part B of Title IX, authorize fellowships for graduate and professional study specifically targeted to women and minorities who are underrepresented in various fields of endeavor such as the hard sciences. We also recommend continuation of Part C of the National Graduate Fellows program for study in the arts, humanities, and social sciences.

NEA believes that the creation of a new program of grants to graduate students based on financial need is imperative. We have testified on numerous occasions on the need to improve services and availability of funding for undergraduate students under the Pell Grant program. Needs continue to be greater than the resources under the program allow for. That is why NEA does not believe that opening up Pell Grants to first and possibly second year graduate students truly offers a comprehensive solution to their assistance needs. Rather, our nation's long-term interests are best served by creating a special graduate assistance program. In this way, we would have the opportunity to fulfill an important national need without harming other programs. NEA also remains supportive of the continuation of the *CLEO* and Law School Clinical Experience Program within the Act.

NEA further recommends that the Fund for the Improvement of Postsecondary Education (FIPSE) authorized under Title X of the Act include in its purview improving and expanding the opportunities available for faculty development at both the graduate and undergraduate levels at higher education institutions.

Finally, let me mention an issue which, although it is not within the direct jurisdiction of this Committee, is a matter relvant to the health of graduate education. The Administration has proposed taxing that portion of research and teaching fellowships and scholarships used for living expenses by those who are engaged in full-time study. We view this as a step backward, for these are the very students to whom I referred earlier—those who forego more lucrative endeavors to pursue advanced studies. Disallowing the tax-exempt status of these fellowships would only be another disincentive for talented graduate students.

Mr. Chairman and Members of the Subcommittee, as you know, earlier this year, NEA offered testimony on Title V of the Higher Education Act with our views on improving teacher education opportunities. In that statement, we noted that:

Part A of the Act be renamed Excellence in Teacher Education, and that this section of the Act should provide incentives for allowing teacher education programs to move quickly and decisively to strengthen their professional education programs;

Federal support be directed to the continuous improvement of teacher professional skills and specialty and subject matter expertise through establishment of a newly named Part B—Professional Development Resource Centers;

Part C of the Act, Summer Institutes, be directed at operating summer institutes and/or workshops for teachers and college faculty to help in their continuing professional development; and

Part D, Data Collection and Research, be added to Title V of the Act as a way to keep current data on supply and demand for education professionals, both their numbers and their matter expertise.

NEA also wishes to express its continued support for the Carl D. Perkins Scholarship and Talented Teacher Fellowship Program already authorized in Title V. CONCLUSION

Mr. Chairman and Members of the Subcommittee, NEA wishes to express its appreciation for this opportunity to present our views on such a timely and vital topic as our graduate education programs. We stand ready to continue working with Members of Congress in the reauthorization of the Higher Education Act. Clearly, the issues raised through the reauthorization process have long-term interests for our students, our teachers, our nation, and the world.

Thank you.

Mr. FORD. Thank you. That's the second bell. We'll recess momentarily and come back in just a few minutes and continue.

[Recess.]

Mr. FORD. Father Ryan, can we get you up to a microphone there?

STATEMENT OF FATHER EDMUND RYAN, SJ, EXECUTIVE VICE PRESIDENT, CANISIUS COLLEGE

Rev. RYAN. I'm Father Edmund Ryan of the Society of Jesus, executive vice president for academic affairs and dean of the graduate school at Canisius College in Buffalo, NY.

On behalf of the Association of Jesuit Colleges & Universities, the AJCU, and of myself, I wish to thank you for the opportunity to testify on title IX, graduate education. My association, as you know, testified before this committee in 1979 on the same matters, as we continue our interest in them.

Since that time, both you, Mr. Ford, and Mr. Coleman have taken an active interest in graduate education, introducing bills to address its needs. Along with the issues noted in Mr. Ford's address to the National Forum on Financing Graduate and Professional Education in February 1983, we understand that support for the first 2 years of graduate and professional education and graduate programs in the areas of national need are the subjects of those bills. Our concerns are also on these subjects, but first let me say something about the Association of Jesuit Colleges and Universities and its members.

There are 28 Jesuit colleges and and universities in the United States, located in 18 States and the District of Columbia; 26 of them have master's degree programs, 7 offer a broad range of doctoral programs; 13 have law schools, and 4 medical schools.

In 1983, the 28 institutions had 172,000 students, of which 105,000 were undergraduates and 51,000 were graduate and professional students, and 15,500 were unclassified. In 1986, they will have their one-millionth living alumni or alumnae. In 1983–84 these colleges and universities received $24.7 million in Pell Grants, $8.8 million from the Supplemental Educational Opportunity Grant Program, $12.8 million in college-work study funds, $4.4 million in NDSL Federal capital contributions. For academic year 1985–86 5 Jesuit institutions will receive $254,000 for 29 fellowships under the Graduate and Professional Opportunity Program.

We consider this an impressive record, and much of its execution derives from the programs and funding levels established by this committee. We are deeply grateful to you for this assistance, and we ask you to continue it for our institutions and all others to assure educational opportunities for all those in need to choose the kind of education most beneficial to them.

Before summarizing the three programs that my association wishes to see incorporated in the reauthorization legislation, I should note that AJCU and I endorse the concept and the program, Grants to Institutions to Encourage Minority Participation in Graduate Education, proposed by the American Council on Education. We are very conscious of the need to attract more persons from minority groups and from groups traditionally underrepresented in graduate and professional schools to enter our institutions and take their rightful place on our faculty and in leadership positions in the Nation.

The three programs proposed by AJCU for title IX and described at greater length in my written testimony are:

First, grants for financial support for first year and second year graduate and professional students. They would be awarded on the basis of financial need and ability to complete the required program. The stipend would not exceed $5,000 or one-half tuition, whichever is the lesser.

Second, fellowship for advanced graduate and professional study would take the current Graduate Opportunity Program and redirect it toward the doctorate. It would also allow those who receive grants in their first and second years in graduate and professional schools to continue receipt of aid based on need and academic performance.

Third, special graduate assistant program would seek out and fund students from underrepresented groups, seeking the highest possible degree in their course of study to enter academic life as teachers or researchers. Again, financial need and ability would be used as criteria for receipt of the awards.

My printed remarks treat extensively the need to make all Federal financial aid programs tuition sensitive. Let me use Canisius College and the State University of New York at Buffalo as examples.

Our two schools are the only ones in western New York whose business programs are accredited by the American Assembly of the Collegiate Schools of Business. That association accredits only 245 business programs in the United States. Therefore, I believe our cost of the program for our two institutions are very similar.

My MBA program charges $200 a credit. To complete the program of 48 credits, a student would pay $9,600. The cost to my institution is between $1,000 and $2,000 more than that. At the excellent State University of New York at Buffalo, students pay $90 a credit, or $4,320 to receive a degree. The cost to University of Buffalo is also between $10,600 and $11,600, but UB asks and receives taxpayers' dollars to subsidize their MBA program.

Does a minority student from a family below the poverty line have true educational freedom to choose between paying $90 or $200 a credit? I don't believe the freedom exists. I'd be happy to respond to questions on that point later.

My other suggestion is that the three programs that I propose be open to part-time graduate and professional students who take at least 12 credits a year. This would make the programs open to more students from less affluent families. It will become even more urgent if the Employee Education Act expires at the end of this calendar year, December 31, 1985, or is killed by provisions in the new tax bill.

My association and I know the history of Federal student aid in this country. Because of that, AJCU prefers to see funding for grants to graduate and professional students remain under title IX and not be moved under title IV.

My association also is opposed to making the principal criterion in the award of graduate fellowships and grants to the relative quality of graduate programs. That criterion is too subjective. It will be run by the old boy's network. It would also effectively cut off grants to Catholic colleges and universities except for Georgetown, Notre Dame and a few others, and would exclude most black colleges and universities except Howard, Fisk and a few others.

Yet Catholic institutions and traditionally black institutions have been very successful in educating minorities. That is why we would be happier with objective criteria such as the number of minorities to receive degrees at the institution in the last 5 years as one criterion for awarding grants to institutions.

Let me illustrate. The New York State Education Department in its 1981-82 report has a comparison of results of special enrollment programs for minority students. It produced some very interesting statistics. The City University of New York system—their special educational opportunity program had a retention rate to senior year of 22 percent and a graduation rate of 10 to 11 percent. At independent colleges and universities in New York State, the retention rate was 46 percent, and the——

I'm not indicting public higher education. I'm very much in favor of it. But I am saying that the type of campus and the type of faculty has much to do with student success at undergraduate and graduate level. I'd be happy to discuss these issues in response to your questions.

I thank you, Mr. Ford, and Mr. Coleman for your committee members for this opportunity to appear before you and to speak on behalf of the 28 Jesuit colleges and universities.

Thank you, sir.

[The prepared statement of Father Edmund Ryan, SJ follows:]

PREPARED STATEMENT OF FATHER EDMUND RYAN, SJ ON BEHALF OF THE ASSOCIATION OF JESUIT COLLEGES AND UNIVERSITIES

I am Father Edmund G. Ryan, SJ, Executive Vice President for Academic Affairs and Dean of the Graduate School at Canisius College in Buffalo, New York.

On behalf of the Association of Jesuit Colleges and Universities (AJCU) and of myself I wish to thank you for the opportunity to testify on Title IX—Graduate Education. The Association, as you know, testified before this committee in 1979 on the same matters, as we continue our interest in them. Since that time, both you, Mr. Ford, and Mr. Coleman have taken an active interest in graduate education, introducing bills to address its needs. Along with the issues noted in Mr. Ford's address to the National Forum on Financing Graduate and Professional Education in February 1983, we understand that support for the first two years of graduate and professional education and graduate programs in the areas of national need are the subjects of those bills. Our concerns are also on these subjects, but first let me say something about the Association of Jesuit Colleges and Universities and its members.

There are 28 Jesuit colleges and universities in the United States, located in 18 states and the District of Columbia. Twenty- six of these have Master degree programs, seven offer a broad range of doctoral programs. Thirteen have law schools, and four have medical schools. In 1983, the 28 institutions had 172,103 students, of which 105,385 were undergraduates and 50,942 were graduate and professional students, 15,776 were unclassified. In 1986, they will have one million living alumni/ae. In 1983-84, these colleges and universities received $24,784,000 in Pell Grant funds, $8,857,000 from SEOG, $12,869,000 in College-Work Study funds, and $4,470,000 in NDSL federal capital contributions. For academic year 1985-86, five Jesuit universities will receive $254,100 for 29 fellowships under the G'POP program (Graduate and Professional Educational Opportunity Program.) We consider this an impressive record and much of its execution derives from the programs and funding levels established by this committee. We are deeply grateful to you for this assistance and we ask you to continue it for our institutions and all others to assure educational opportunities for all those in need to choose the kind of education most beneficial to them.

In this regard, let me call to your attention the testimony of the National Association of Independent Colleges and Universities on its proposals for changes in student financial aid programs. We hope you give close attention to these recommendations, particularly to those on Pell grants. Independent colleges and universities are unhappily faced with growing difficulties in funding students. Larger amounts of institutional aid are being required to meet student needs because of limited federal funds and the tuition gap between public and independent institutions. We are convinced that the recommendations proposed by NAICU would be most beneficial, indeed necessary, to redress the imbalance now existing between access to public and to independent colleges and universities. Despite the publicity about a few independent institutions and their costs, the majority of our institutions offer much the same quality of education at moderate costs, but still must compete with the even much lower costs of tax-subsidized state colleges and universities. As is well known, the actual costs of education are very similar at public and independent institutions, but the prices charged the students vary by reason of the tax subsidy provided to sustain low tuition at public institutions. New York State is an excellent example of these differentials.

Citizens of New York State have created three large groups of colleges and universities. The oldest sector—independent colleges and universities number 135 and belong to the Commission on Independent Colleges and Universities (CICU). The State University of New York or SUNY system and the City University of New York or CUNY systems number 60 institutions and came into existence as systems in the 1950's and 1960's.

For undergraduates at SUNY in 1985-86 tuition is $1,350, for CUNY undergraduates $1,200. At my institution students pay $5,400 for tuition. The median tuition for all CICU institutions in 1984-85 was $6,500. With these figures from the New York State Education Department and the Governor's Budget Office, CICU calculates that last year, when undergraduate tuition at SUNY and CUNY stood at the same level as this year, New York taxpayers subsidized every undergraduate by $7,440 for SUNY and $5,870 for CUNY. The subsidy will be greater in 1985-86 as their expenses have increased.

Greater tuition differentials and greater subsidies exist for students enrolled in public graduate and professional schools. Let me illustrate by using Canisius College and our friendly neighbor, the State University of New York at Buffalo. UB charges $90 per credit for graduate education. Canisius charges $146 per credit in our programs leading to Masters' degrees in Education and $200 per credit in our MBA program. Is there true freedom for the least affluent student in Buffalo to choose between Canisius and UB when the cost to the student is so much greater at my institution?

Let me pursue further a comparison between the true educational costs of the MBA program at UB and at Canisius. Our institutions are the only two in Western New York accredited by the American Assembly of the Collegiate Schools of Business. AACSB has very strict accreditation standards; they accredit only 245 business programs in the United States. The most severe standard faces both Dean Richard Shick at Canisius and Dean Joseph Alutto at UB: 100 percent of graduate courses and 75 percent of all undergraduate courses must be taught by faculty with doctorates. Since nationally only 40-50 doctorates are awarded each year in Accounting, you can imagine what the law of supply and demand requires a college or university to pay for a newly acquired doctorate in Accounting. But faculty salaries constitute the biggest cost for any academic program. Since both of our institutions are located in Western New York, costs for utilities, maintenance, computers and library resources are all comparable, when they are adjusted for size of the two institutions. Total enrollment is 4,500 students at Canisius and 27,000 at UB. I am confident in saying that the costs to our two institutions for our MBA programs and the per student cost to the institution are about equal.

Yet look at the tuition bills at the two institutions. Canisius College charges $200 per credit for the MBA program. This program requires the student to complete 48 graduate credits. A Canisius MBA costs the student $9,600. At the University of Buffalo on the other hand the student also must show completion of 48 graduate credits to be awarded the MBA degree. UB charges $90 per graduate credit. Thus an MBA at UB requires the student to pay $4,320. Yet the costs to Canisius and to UB are almost the same for producing one MBA. Canisius must engage in extensive fund raising to pay between $1,000 and $2,000 beyond the $9,600 to meet the cost of the program. The University of Buffalo asks the taxpayers of New York State to subsidize each new UB MBA by $6,280 to $7,280. I hope that lawmakers in Congress and in Albany and that federal and State taxpayers realize the magnitude of the subsidy. I also warn the public that as this tuition gap widens, the true freedom available to students from the least affluent families to choose a college or university really begins to vanish. Each year independent colleges and universities become less affordable.

Let me look at some greater disparities. Georgetown University, one of AJCU's members, charges $20,6000 a year to a medical student, $9,900 a year to a law student and $7,460 a year to a full-time graduate student—one taking 12 credits—or $311 per credit hour to a part-time graduate student. The University of Buffalo charges $5,500 to a medical student, $3,150 to a law student and $2,150 a year to a full-time graduate student or $90 per credit hour to a part-time graduate student. Can anyone really believe that a student who comes from a minority family with a median income below the poverty line has the financial freedom to choose to enroll at Georgetown as a medical, law or graduate student?

In quoting these statistics neither my organization, the Association of Jesuit Colleges and Universities (AJCU), nor I indict public colleges or universities. We accept and are proud of our educational pluralism of public and independent institutions and do expect taxpayer to subsidize State institutions. But we do want to call your attention to the need to make student federal financial aid programs responsive to the tuition differential between public and independent institutions, if there is to be freedom of choice by students among educational institutions.

Your Committee, my Association, myself and many others show true concern for providing access to higher education for persons from minority groups. New York State has some startling statistics. In 1982 the independent sector enrolled 73,813 black and Hispanic students or 18.1 percent of the student body. SUNY enrolled 41,991 black and Hispanic students or 11.1 percent of the student body. CUNY's enrollment of 92,346 or 52.4 percent of its student body shows its commitment to the education of students from minority groups. That data shows the dedication of CICU members, such as Canisius College, to the education of minorities. To highlight that commitment, let me note that the 1980 census reported that Western New York was 87 percent Caucasian, 10 percent black and 3 percent other minorities. Canisius' Day session enrolls 6 percent blacks; 12 percent of our Evening Division enrollment checked black as race on our registration survey. The Evening Session at Canisius has a median age of 29 years; my graduate division finds most students fall between ages 25-33.

Before discussing how good a job independent institutions do in producing social mobility for minority students, I would like to compare degree productivity in New York's State. "With less than 43 percent of the total postsecondary enrollment, New York's independent colleges grant the overwhelming majority of undergraduate, graduate and professional degrees in our state. Independent institutions confer 15 percent (6,335) of all associate degrees and 56 percent (48,988) of all baccalaureate degrees in New York, although their share of FTE (Full Time Equivalent) undergraduate enrollment is only 38 percent of the state's total. Independent institutions award 73 percent (23,918) of all master's degrees, 70 percent (2,164) of all doctorates and 84 percent of all first professional degrees (6,885) in New York State each year." "Higher Education in New York State—Fact File" (Albany: Council of Governing Boards, 1985) p. 5.

Recent data has caused me and other persons dedicated to equal opportunity and equal access to higher education to worry about the results of some new pressures resulting from student aid policies. Although CICU institutions, such as Canisius, are dedicated to educating students from minority groups and aggressively recruit them, fewer and fewer are registering at our institutions as undergraduates. Our financial aid officers and counselors point out that in New York State financial aid policies of the State and federal government produce a disincentive to enroll at an independent college. The special programs to aid access to higher education in New York State are called the Education Opportunity Program (EOP) at SUNY and Higher Education Opportunity Program (HEOP) at independent or CICU institutions. EOP and HEOP offer a $1,500 stipend to students. Present federal regulations establish a maximum Pell grant of $2,100 and allow Pell to be used for non- tuition expenses such as travel, books, room and board and other incidentals.

Let me hypothesize. A student with proven maximum need can receive a $1,500 New York State grant and a $2,100 Pell grant for a total of $3,600. If the student enrolls at UB or a SUNY school, the student can use $1,350 of the State grant to pay for tuition and pocket the remaining $150 for other needs and then use the entire $2,100 Pell grant for non-tuition expenses. If that student were to come to Canisius College the total of both grants would fall $1,800 short of paying for a year's tuition. We find this a very disturbing trend. It works against full freedom of educational opportunity and choice for persons from minority groups.

I shall refer now to the AJCU testimony submitted earlier to this committee (prior to April 30, 1985.) I would like to amend that testimony and include a new version, but with the same orientation. The changes will be noted therein, and this version is attached to my testimony.

There are three programs which we propose, two of which are new and the other a modification of the current Graduate Professional Opportunity Program (G'POP). I should add that we endorse the idea and the program, Grants to Institutions to Encourage Minority Participation in Graduate Education, proposed by the American Council on Education. The three programs noted above are:

Financial support for 1st and 2nd year graduate and professional students

Orienting the G'POP program towards the doctorate and 2-year plus professional programs

A special program for outstanding students from under-represented groups seeking the highest degree possible in their course of study to enter academic life as teachers or researchers.

Each of these programs is aimed at students with financial need; the proposed Graduate Professional Opportunity Program and the Special Graduate Assistance Program are further oriented towards minority groups traditionally under-represented in a) colleges and universities and b) academic teaching and research positions.

A further step in this group of programs to assure their viability is a combined funding level, distributed to each program on the basis of a percentage formula. We are aware that diverse programs could have separate funding authorizations, but we also realize from experience that such individuation can diminish and sometimes eliminate funding from other needed programs. The example of Title II—College and University Library Assistance, is sufficient to make the point. At one time, there were programs of Basic Grants, Training, Research and Development Grants, and Research Library Resources Grants. Now there is no funding for Basic Grants, while there is for the research libraries. Without debating the merits of the issue, we do believe that one or another of the programs we recommend would be in jeopardy if there is not a common appropriations distributed percentagewise. We have attempted to develop a progressivity among needed programs and have associated that with funding levels.

For the same reason AJCU and I prefer that Congress keep these three programs under Title IX which deals with graduate and professional education. Graduate and professional students participate under programs contained in Title IV, such as the National Direct Student Loan (NDSL), the Guaranteed Student Loan (GSL), Auxiliary Loans to Assist Students (ALAS) and College Work Study. But their participation is overwhelmingly confined to loan programs. Their participation in the College Work Study Program is rather slight. Fellowships for graduate and professional students should not be placed under Title IV whose grant programs historically have concentrated on undergraduates. We urge that you reauthorize the present legislation and keep grants for graduate and professional schools and their students under Title IX.

In 1979, AJCU recommended in its testimony a need-based grant-type aid program to support two years of graduate education at less than the doctoral level, plus a small institutional component. We again support this idea, and suggest that the program recommended, only slightly different from that which Mr. Ford proposes, be contained in the reauthorization bill. In that case, we would also recommend that G'POP become a doctoral level program with aid also to professional students beyond the two-year program. We have been unable to learn how many students in G'POP are seeking the terminal Master's degree, but the following information is useful:

G'POP students received the following degrees in the years noted:

	Master	Ph.D.	Law (J.D.)	Total number of awards
1981-82	174	55	64	1,145
1982-83	115	32	25	1,004
1983-84	121	60	72	1,201
1984-85 (estimate)	260	80	90	1,325

Note: Phone conversation with G'POP staff at D/Ed.

There is no correlation, of course, between the degrees received and the number of awards for these years, nor is any intended. One would have to find data from preceding years to determine results. Yet, it is obvious that the Master's program is a vital part of G'POP and could now stand on its own as a necessary component of graduate educational aid.

Let me give you an idea about the usefulness of such a two-year program at Canisius and for many institutions offering two-year programs, whether terminal or not. As I mentioned previously, Canisius College has two generic programs leading to a Master's in Business Administration or a Master's in Education. In Education we offer programs in Secondary Teaching, in Kindergarten through 12th Grade Teaching, in Reading, in Principalship, in Counseling, in Supervision/ Curriculum and in Special Education (teaching the hearing impaired.) All the 315 students enrolled in the MBA program in 1985-86 are part-time students, though almost all complete 15 credits in one year. The 299 persons registered in Education in 1985-86 show 51 as full-time and 248 as part-time. Practically all students enrolled in our cooperative programs with St. Mary's School for the Deaf are full-time students. Other programs have a sprinkling of full-time students.

Canisius College considers itself a liberal arts college that also offers Masters' programs. All undergraduates take a core curriculum of 45 credits or 37.5 percent of graduation requirements. Humanities and Values courses, such as Philosophy and Religious Studies, compromise a good part of the core. Our undergraduate business majors are held to those requirements. Our Masters' programs continue that type of approach. In my opinion the type of community established on the campuses of liberal arts colleges provides the opportunity for personal concern. This atmosphere helps students succeed. I'm convinced and the literature confirms my belief that campuses such as Canisius can air minorities to succeed academically. They and all students receive personal attention from the faculty who counsel, encourage and guide them.

Thus, I'm very supportive of giving fellowships to students to study for Masters' degrees at Canisius College. But I would make a plea to have the language of the reauthorization bill so written that part-time students are not excluded from the benefits provided by the programs. I know that my students work to support families and to pay tuition. They would do much better academically by being able to receive fellowship stipends and spending less time working for a living. The language in reauthorization should extend the benefits of the program to students who enroll for at least 12 to 15 hours a year. Were this done, I would predict more recipients of Masters' degrees including persons from minority groups would then be motivated to go on for doctoral work under the same grant provisions.

Canisius graduate students do utilize the federal loan programs. MBA students last year borrowed $141,105 under the GSL program and $23,150 under the ALAS program. Students enrolled for Master's in Education borrowed $233,105 under GSL and $38,793 under ALAS. The College from its own funds awarded 26 assistantships. My graduate students would be elated to receive notification that they were eligible to participate in a federal grant program. But let me reiterate my general point on federal student aid formulas. Please make sure that the language in the reauthorization bill responds directly to the need to make the dollar amounts of the fellowships tuition sensitive. That will assure students true freedom of choice of educational institutions.

In speaking with my own graduate students and reading the data supplied by other AJCU schools, financial support for 1st and 2nd year graduate and professional students would increase the number of students going on to these schools. In our present economic climate students after receipt of their bachelor's degree, feel that they immediately must either seek a job or go on for more formal education. The possibility of financial support for their first two years in graduate or professional school would be a great incentive to choose that route.

In addition, the creation of a special program for outstanding students from under-represented groups seeking the highest degree possible in their course of study to enter academic life as teachers or researchers would serve a true need and be good political and social policy. But my experience with students from under-represented groups leads me to insist that "outstanding" can be judged by grade point average but should also admit "potential" in addition to or in lieu of that first result. Persons from economically disadvantaged families take longer to achieve high grades than students from more affluent families. Letters from former teachers could help identify potentially outstanding students. The faculty know them and their progress. They also are able to predict their ultimate success.

My Association and I are very pleased to offer to the Congress a program to enable persons from under-represented groups to go on to graduate school and to receive degrees. Then they can use their degrees to enter our school systems and our college and university faculties. Students from under-represented groups miss in the classroom the presence of adult role models from their own race or nationality. This program would enable these successful graduates to motivate all students but especially those from their own group to set goals and reach them. Others will receive good jobs and become models as leaders of business, industry and government.

My last point analyzes an amendment suggested by two associations. That amendment would make Section 942 (a) and (b)(1) to read:

Sec. 942(a). The Secretary shall make grants to academic departments of institutions of higher education to enable such institutions to provide assistance to graduate students in accordance with this part.

(b)(1) The principal criterion for the allocation of awards shall be the relative quality of the graduate programs presented in competing applications.

I have no problem with the wording in Section 942(a). The wording in Section 942(b)(1) does merit close attention.

My Association and I are happy that the Trustees of SUNY have designated the University of Buffalo and the State University of New York at Stony Brook as flagship universities of that system and want them to gain a place among the first rank of major research universities. New York obviously has borrowed from the California model that marked out the University of California at Berkeley and the University of California at Los Angeles for such treatment. Mr. Ford, your University of Michigan, and Mr. Coleman, your University of Missouri have attained similar stature. Harvard, Stanford, Johns Hopkins, Columbia, Chicago, Notre Dame, the University of Rochester, Cornell, Georgetown and many others belong to that elite group. They have served the nation and the States very well in research and public service.

But I cannot accept the principle that public funds collected from taxpayers in every State should be distributed according to a formula that is the most subjective one that I can imagine. That section declares, "The principal criterion for the allocation of awards shall be the relative quality of the graduate programs." Who establishes "the relative quality of the graduate programs?" WIll it be "the loyalist network" that declares "the best university is where I got my doctorate?" Will it be " the old boy elitist network?" That declares, "We've marked out the best; everyone knows the list. We sent out questionnaires to the best researchers in each field and they have ranked all the best programs?" Another concern is that the 'old boy network" is just that—women are excluded as judges. That network hasn't been affected by the drive for equality of women. The percentages of women in the senior ranks at major universities prove that.

In my opinion and that of my Association such subjective norms are both incorrect and inherently unjust. The subjective norms would rule out all traditional black colleges and universities except some programs at Howard University. Yet the purpose of some of the programs is to aid students from minority groups and under-represented groups to obtain Masters' degrees and doctorates. I would ask a very objective question to proponents of the principal and subjective criterion, "What is the record of the major research and/or elitist institutions in successfully graduating persons from minority and under-represented groups?" or more specifically, "What is the record of X or Y University in their attraction, retention and graduation of such students?" As a learning theorist, I know that laissez-faire treatment of the best and the brightest can prepare future Nobel laureates. But not every learner benefits equally from the same teaching techniques and pedagogy. Persons from minority and under-represented groups frequently need more and better teaching than the most advantaged students.

My earlier remarks on the ambiance of liberal arts campuses as a factor in helping minorities and other under-represented groups to succeed academically should be recalled. New York State provides dramatic evidence of the success of minorities as undergraduates on public and independent campuses. The last figures published by the State Education Department presents data from the 1981-82 year. The survival rate for "Seek students" remaining in the program was 22 percent; their graduation rate was between 10-11 percent. The survival rate for "Discovery students" remaining in the program was 33.2 percent; their graduation rate was 14 percent. For independent institutions, the HEOP survival rate for remaining in the program was 46 percent; their graduation rate was 44 percent. The smaller campuses in the independent sector succeeded better in retaining and graduating students.

That data makes me wonder how successful will the large research universities be in educating students from under-represented groups? The large research university by its very nature must espouse social Darwinism—the best will survive; self-starters will survive; future pace setters will survive; those not destined for doctoral greatness will fall by the wayside. But that is the way life works. There are winners and losers. Elitist policy awards tuition remission, teaching assistantships and fellowships to the students with the best grades, best objective test scores, with degrees from the best colleges. Are these institutions prepared to give the necessary social and academic support to students from under-represented groups?

My own opinion, shared by many others consider that those practices applied by some graduate schools have produced the problem of the scarcity of persons from minority and other under-represented groups. Yet the solution offered to the problem by two organizations declares that those who created the problem are in the best position to remove the problem. My questions are "How will the elitist universities do this? Fire the present faculty?—but they have tenure. Establish new academic standards?—but this violates academic freedom." No, faculty members at the major universities will retain their posts and academic standards will remain the same.

I suggest that the awards be made by the Secretary but that one of the criteria be the success of institutions in attracting, retaining and graduating students from minority and under-represented groups. That can be proved objectively by the number of degrees granted to them. Under this criterion Catholic University in Washington, D.C., Loyola University in New Orleans, Fordham University and Canisius College would do quite well in competition for federal funds under the programs which I have discussed. Teachers on these campuses may not have won Nobel prizes but they do have one superlative quality: they show real care and concern for students. That quality aids retention and graduation of students.

Let me conclude my testimony by summarizing briefly the points which I have discussed. The AJCU—our 28 colleges and universities—and I wish to thank members of the Subcommittee especially Representatives Ford and Coleman for your support in the past for student financial aid programs and for your interest in graduate education. Your support of G'POP (Graduate and Professional Educational Opportunity Program) and your desire to create new programs receive our support.

We want to point out our complete agreement with NAICU (National Association of Independent Colleges and Universities) in its testimony on changes in student financial aid programs. We desire that formulae for computation of need be tuition sensitive. The gap between tuition charged by independent institutions and public ones is widening. This does not mean that the actual cost of education to the institutions is rising faster at independent colleges and universities than at State institutions. Actual costs are comparable. It does mean that independent institutions pass cost increases on to students; State institutions go to the legislature and receive greater tax subsidies.

In New York State SUNY institutions charged $3,150 for undergraduate tuition in 1984-85 and the same in 1985-86. Canisius' tuition was $5,000 in 1984-85 and $5,400 in 1985-86. Last year state taxpayers subsidized each FTE at a SUNY campus by $7,440. That subsidy will increase this year. On the level of graduate education in Business Canisius' students pay $9,600 for their MBA; a SUNY-UB student pays $4,320. Canisius must get $1,000-2,000 from other sources to pay the real cost of education; UB receives $6,280 to $7,280 from the State taxpayer. If the tuition differential is not considered and placed in the regulations for federal financial aid, students will receive a disincentive to enroll at independent institutions such as Canisius and the other 27 Jesuit colleges and universities.

For reasons of equity also my Association and I prefer that the funding of Title IX programs for graduate and professional education remain under that title. We oppose moving the funding of grant programs for graduate and professional students from Title IX to Title IV. We don't want to mix grant programs for undergraduates and for students enrolled in programs beyond the bachelor's level. This could bring about struggles over grant funds between undergraduate and graduate and professional schools. For the same reason AJCU wishes in the reauthorization bill to develop a progressivity among needed programs and associate that with funding levels.

Regarding the three programs which I discussed. The first would provide financial support for 1st and 2nd year graduate and professional students. This program will increase applicants and enrollments at these institutions and give persons with the receipt of a new bachelor's degree greater freedom to decide to continue schooling or enter the job market. My own suggestion is that the program's regulations permit part-time students (who register for at least 50% of the courses) to be eligible for participation.

The second program endorses in principle targeting the Graduate and Professional Educational Opportunity Program (G'POP) towards the doctorate and 2 year plus professional programs. This would respond to National needs and continue to expand the pool of qualified researchers, teachers and professional persons. It would permit those who have received grants under Subpart 1 for two years to become eligible for additional graduate education if such is necessary (eg. to obtain a doctorate or a law degree).

My Association and myself disagree totally with the establishment as a criterion of awarding grants to graduate programs at institutions "the relative quality of the institution's graduate program." Our opposition grows greater when some Associations want to introduce this as "the principal criterion." This is a totally subjective criterion. The subjective norm depends either on loyalty to one's doctoral origins or to an "old boys' network" of friends ranking highly the programs of their friends. We would prefer more objective criteria. In our proposal to help increase the number of students going to graduate school from minority or under-represented groups—we would use as one criterion for award—the actual number of degrees awarded to such persons by that institution during the last five years.

The third program which AJCU proposes is directed to meet a special need: to replenish the supply of faculty and researchers with special emphases on under-represented groups. This would meet a national need and be good social policy to have representatives of such groups present on our faculties and in research firms. Their presence would give good role models to all students but especially those presently unrepresented on college and university faculties.

In conclusion I wish to thank the Chairman and the members of the Subcommittee for inviting me to testify on behalf of AJCU. Our 28 institutions congratulate and thank you for your support in the past and in the process of reauthorization. Our colleges and universities—public and private-constitute one of this nation's greatest resources. By your concern and help you keep us strong and continue the role of world leadership by the United States.

Association of Jesuit Colleges and Universities · September 12, 1985

Modifications to the "Suggested Amendments" Submitted by AJCU to the House Subcommitte on Postsecondary Education, April 30, 1985.

All references will be to the "Suggested Amendments," not to the current law.

	SUGGESTED AMENDMENT	CHANGE TO:
Subpart 2	Sec.902A. It is the purpose of this subpart to provide, through institutions of higher education, a program of grants to assist in making available the benefits of advance post-baccalaureate education to graduate and professional students who demonstrate financial need.	It is the purpose of this subpart to provide, through institutions of higher education, a program of grants to assist in making available the benefits of advanced higher education, specifically the doctoral degree and professional education beyond the second year to graduate and professional students who demonstrate financial need.
	Sec.902B(b)(1). The Secretary shall not make a grant to a single institution of higher education of less than $100,000 from the sums appropriated under this subpart for any fiscal year.	Delete Sec.902B(b)(1). The current law stipulates a $75,000 minimum per school, but Congress has overridden that restriction continually, including 1985-86. Over the last 3 years, about 70% of awards were less than $100,000.
	Sec.902C. An institution of higher education receiving funds under this part shall make available to financially needy graduate and professional students an award determined by such institution of higher education, except that no award under this subpart may exceed $5000, or the demonstrated level of financial need according to measurements of need approved by the Secretary, whichever is lower.	Sec.902C. An institution of higher education receiving funds under this subpart shall make available to financially needy graduate and professional students an award determined by the institution of higher education or the demonstrated level of financial need according to measurements of need approved by the Secretary, whichever is lower. A $5000 per year education allowance will be provided to the institution for each student enrolled; fellows shall receive a stipend up to $5000 for a 12 month year, payable monthly.
Subpart 3	Sec.903B(b)(1) From the sums appropriated under this subpart for any fiscal year, the Secretary shall not make a grant to any institution of less than $70,000 a fiscal year for a three year period.	Delete Sec.903B(b)(1). Change all subsequent subsection numbers of (b) accordingly.

(over)

	SUGGESTED AMENDMENT	CHANGE TO:
Subpart 3	Sec.903E(a)(1) From 60 percent of the funds received under this subpart...	Sec.903E(a)(1) From 80 percent of the funds received under this subpart...
	Sec.903E(b) The size of fellowship awards made to students for an individual academic year shall be determined by such institution of higher education, except that no annual award under this subpart may exceed $9000, or the demonstrated level of need developed by the institution, whichever is less.	Sec.903E(b) The size of fellowship awards made to students for an individual academic year shall be determined by such institution of higher education, except that no annual award under this subpart may exceed $7,500, or the demonstrated level of need according to criteria of need developed by the institution, whichever is less.
	Sec.903F(a) From 40 percent of the funds received under this subpart...	Sec.903F(a) From 20 percent of the funds received under this subpart....

Mr. FORD. Thank you very much.
John Cramer.

STATEMENT OF JOHN CRAMER, ON BEHALF OF THE AMERICAN BAR ASSOCIATION SECTION OF LEGAL EDUCATION, THE ASSOCIATION OF AMERICAN LAW SCHOOLS, AND THE LAW SCHOOL ADMISSION COUNCIL, AND MILLARD RUDE

Mr. CRAMER. Mr. Chairman, I am appearing here today in place of Roger Cramton of Cornell Law School, who is unfortunately teaching a class this morning. And I'm appearing on behalf of a trio of legal education organizations, the American Bar Association Section of Legal Education, the Association of American Law Schools whose executive director, Millard Rude, is behind me and will talk about two of our particular programs, and the Law School Admission Council.

I should point out, as part of your history—and Mr. Coleman has already pointed out that I used to wear another hat—back in 1965 in August I sat at the right hand of Adam Clayton Powell on the floor when we passed the first Higher Education Act of 1965. I was his counsel 20 years ago.

Law schools are not coming here to tell you that you should fund more lawyers, but they're not coming here to tell you that you should fund fewer either. The problem is: We're already funded, and the question is whether you should defund us or any of the others in professional and graduate school. The answer is obviously no, or we wouldn't be here.

There are 120,000 of our students in law school today, plus give or take another 8,000 in graduate law programs, who represent about 1 percent of higher education; and at the moment we have outstanding about 3 or 4 percent of the GSL's and a lot more of the PLUS loans. We are, in a way, a socialized practice of law schools.

Law school tuition is about $607 million nationwide, excluding the subsidies from the States, in 175 law schools; and a little over $300-plus of that is Federal loans that effectively go to pay those tuitions, putting to one side, of course, work study, NDSL's and the several other programs. I would say law schools are between 50 and 60 percent federally subsidized. They open their doors with Federal dollars.

Therefore, obviously, we are significantly interested in these programs. We have taken the lead in part because of this. We are not very much different than the medical schools. In fact, I think we're just a little bit more—the medical school testimony is here today—a little bit more federally supported than they are. Not much. But we took the lead last year in the spring in putting a petition in to Secretary Bell to increase the loan limits to $8,000, which he rejected in March; and we have included as an appendix to our testimony a copy of his rejection, because we address in our testimony some of his comments.

We take those comments seriously. What we are asking for today in the loan area—and we may be different than some of these other groups—we are asking for more, and we are also asking for less; and we are asking that the balance perhaps be less, which may shock you since that is not the normal range of testimony that you have heard.

Now we are very supportive of those graduate programs who desperately need grants, and we do get some grants, particularly for minority students through the GPOP Program and through another program that Mr. Rude is going to address later on. But our concern is the loan program, and we think, with respect certainly to law students and perhaps to almost all other professional students and many graduate students, that there are some potential tradeoffs here.

I'll summarize those tradeoffs as the heart of my testimony. The tradeoffs are basically these:

We think that there is justification in the rising tuition levels. At the average private law school now, when you go in there, you can expect to pay between $40,000 to $45,000 in tuition and cost of attendance for the next 3 years. You will lose, forego in earnings, about $40,000 which is what you otherwise might have earned minus what you can earn during the winter and during the summers.

If you then take out loans, it's another $10,000 to $15,000 in interest costs feathered out over 10 years. So going to the average private law school can cost as much as $63,000 for the next 3 years—the $5,000 GSL limit—and law schools, as an example. The $5,000 GSL limit simply is not enough. It has been frozen in place for a number of years. You gave the Secretary authority 13 years ago to raise that level. He chose not to do so on an administrative basis, and we think—we would hope—that you would consider doing it on a congressional basis.

Now that's going to cost some. Obviously, $3,000 more is like a 60-percent increment. Because of the limits on GSL's there's no way every student who is now taking $5,000 is going to take $8,000. It couldn't happen, but—and we have some projections of cost.

We do not ask that that cost be an absolute add-on to the budget. We would suggest that there are two offsets to that add-on, raising the graduate and professional school limit to $8,000 for GSL's. But first let me suggest the other part of the program.

Obviously, when you go to $8,000, the two objections that the Secretary had was: One was cost, and the other was manageability of repayment, which is a serious problem. If you start acquiring $24,000 in debt or more to go to law school, on top of undergraduate debt, you're talking debts in the range of $30,000 to $40,000. I have put tables in my material to show you how this breaks down, on page 14 of the testimony, what percent of your gross income dependent on various income levels you would have to put in to pay off those loans under current conditions.

So we would ask for (a) an increase to $8,000 with the cumulative total up accordingly; but (b) that you go back to the old system of consolidated loans with extended repayment, coupled with mandatory—that is to say, mandatory on the consolidator—graduated repayment, so that the student would have the option to repay on a graduated basis paying less in the first few years of professional experience and a lot more after the 10th year when, of course, they're 35 to 40 heavier earnings.

So what we're asking for is $5,000 to $8,000, consolidation on an extended basis up to 20 years, and mandatory graduated repayment. But given that, all of those costs could be more than offset if, during the first 10 years of consolidation, the interest rate were 10 percent, not 8 or not some composite, some messy composite of all the rates. And second, and more important, in the extended period and in the graduated period, that interest rate should be the market interest rate without any Government subsidy at all.

When somebody is 35 to 40 in the better earning years of their professional career, there is no reason why they could not afford to pay the market interest rate, which today would be in the area of 11 or 12 percent and, of course, has varied over the last 5 or 6 years.

Our estimates of cost on this combination is that it would be a net saving to the Federal budget, but it would put the help where the help is needed: (a) during the years of law school, and (b) during those first few years out when nobody—including the New York corporate lawyers who make $50,000 to $51,000—can really afford the burden in the first year or two. After that, easier.

So out tradeoff would be: continue to help us during law school, help us a little more by an extra $3,000, help us during the first few years of professional practice—again, this would apply to the doctors as well and all other professionals—and then make us really pay without your help in the final period of repayment of those loans.

Now Mr. Rude would like to speak to two programs. I notice that Mr. Coleman has a new title IX, part D. We would hope you do not delete the old part D, because part D and part E have been in the law for now 18 years, and they both relate to law school.

Mr. RUDE. Mr. Chairman, members of the committee. My name is Millard Rude. Let me speak just briefly about two other programs in which we are interested.

Title IX, part D, the legal training for the disadvantaged, supports the program that is operated by the Council on Legal Education Opportunity [CLEO]. CLEO offers to the disadvantaged students with marginal credentials, marginal in terms of whether that person could get in, not marginal in the sense of not having the capacity for legal education—the opportunity to demonstrate through successful completion of summer institute program that they are in truth capable of successfully completing law school.

The summer institute also helps prepare the student—these students for the study of law. CLEO has worked. It has importantly been a means directly and indirectly as a catalyst to significantly increase a minority representation in the law student body and in our profession.

Some 2,550 student—CLEO students have either graduated or are presently in law school. We ask that you continue this program. We ask that you authorize $5 million a year, and that would permit an increase in appropriations should the Congress so determine. That would permit the program to make grants that would offer in school grants of a level of GPOP.

The second program that I want to address is that in title IX, part E, the Clinical Legal Education Program. The contemporary quality law school clinical programs have their beginnings about 20 years ago, stimulated with Ford Foundation funds that were used until about 1980 and Federal support that started in 1978. Clinical legal education has become an important part of legal education, and I think we are able to deliver to the profession better equipped, more understanding lawyers.

The details of our suggestions for the reauthorization are in our testimony. It is a more expensive program, because of the higher student-teacher ratios—lower student-teacher ratios, I should say—required for that more one-on-one kind of teaching, and it is for that reason we need your help.

While our purpose as legal educators in clinical legal education is what it offers to our students, there is, however; an important public benefit that, in a sense, is a spinoff of that, and that is the provision of legal services to the large number of indigents through the operation of the program. I thank you.

[The prepared statement of Roger C. Cramton follows:]

Prepared Statement of Roger C. Cramton, on Behalf of the Joint Task Force on Federal Financial Assistance to Law Students

I am Roger C. Cramton, Robert S. Stevens Professor of Law at Cornell Law School and, at various times in the 1970's, Assistant Attorney General in charge of the Office of Legal Counsel; Chairman of the Board of the Legal Services Corporation; and Dean of Cornell Law School. I appear today as President of the Association of American Law Schools (AALS) and as spokesperson for the Joint Task Force on Federal Financial Assistance to Law Students, a composite undertaking of the "big three" in legal education—the American Bar Association Section of Legal Education and Admissions to the Bar, the AALS, and the Law School Admission Council (LSAC), which has monitored the Guaranteed Student Loan (GSL) and other Federal programs on behalf of legal education since 1982. Joining me in this presentation is Millard H. Ruud, the Executive Director of the AALS and for over 30 years a member of the law faculty at the University of Texas and John R. Kramer, Associate Dean and Professor of Law at the Georgetown University Law Center as well as Chair of the Joint Task Force.

Our Joint Task Force has been quite active in the past three years, taking the lead on behalf of all graduate and professional students in presenting a 63-page petition in June, 1984 to then Secretary of Education Terrel Bell that requested him to raise the loan limits on GSLs to $8,000 per academic year for graduate and professional students enrolled in educational institutions with tuition costs in excess of $5,000 (and also to expand the cumulative loan limits as well to $37,000). That petition was formally denied as unnecessary and costly on March 12, 1985 by incumbent Secretary Bennett (a copy of that denial is attached as Appendix A). We have lobbied and argued as best we could to preserve the existing array of financial aid programs from the annual budget assaults of the past four years and to maintain two other programs that benefit law schools more directly—Title IX, Part D, legal training for the disadvantaged (the so-called "CLEO" or Council on Legal Education Opportunity program) and Title IX, Part E, the law school clinical experience program.

WHY SUBSIDIZE LAW STUDENTS?

We come before you to help you answer a difficult and crucial question: Is there any justification for asking American taxpayers to continue to subsidize the education of law students? Our answer is a firm "yes". It is not that we need more lawyers. We are not here to argue that the 650,000-plus existing lawyers constitute a supply too small to meet the demand and that our students should be aided so that we can continue to award another 36 to 37,000 J.D. degrees every year and educate 120,000 students in 175 nationally accredited law schools. Whether or not the nation needs more or fewer lawyers or more or less law, we have traditionally left the choice of a person's occupation up to that person. We acknowledge that this freedom of career choice has been assisted significantly during the past two decades by the expectation that the Federal government would act to promote access for students from families whose income might otherwise pose a barrier. To change that situation and destroy that expectation in 1985 or 1986 would be tantamount to informing every middle-class or poor college graduate who was interested in in going to law school that he or she ought to abandon that interest because it had become prohibitively expensive absent full scholarship aid encompassing tuition, room, and board offered by one of the 100 private law schools or in-state attendance at one of the 74 public law schools coupled with scrimping on food and living conditions. Few students would qualify under those conditions. The existing expense would, with the advent of the end of GSLs, become $5,658 greater, assuming that the private loan market would be willing to make $15,000 available over three years without guarantees at a market rate of 13 percent, with the interest accrued and compounded every six months until repayment commenced six months after graduation. That is a one-time tuition increase of 82 percent over the 1984-85 average tuition at private schools and 447 percent over the 1984-85 average tuition at public schools. In either event, it would generally be the straw that finally sent the camel packing—and not packing for law school.

We have never as a nation considered attempting to stack the fiscal cards against a particular profession or professions in general, by denying support to a student of any race, sex, age, or financial background who wanted to be a doctor, dentist, optometrist, investment banker, veterinarian, podiatrist, osteopath, or even an attorney, when such support is otherwise generally available for other careers.

That is precisely what would happen if Congress were to terminate GSLs for law students or graduate and professional students generally. Given the cost of this education and the lack of reasonable alternatives for financing it, any attempt to seek significant savings by curtailing the flow of subsidized loans to these students would inevitably result in virtual abandonment of those fields to the children of the very well-to-do. That is simply not an acceptable option, however grave the budget deficit.

If there are too many lawyers, the market will self-correct, fees will freeze or dro as will associates' salaries, and hiring will be restricted, followed, over time, by diminution in the numbers seeking to go to law school. Indeed, we seem to have arrive at this point, with a 9 percent decline in our applicant pool from 1980 to 1984 reflecting, in part, a perceived oversupply of lawyers. The Federal government doe not need to constrict the flow of financial aid in order to reduce the number of lawyers-to-be. The market will do it better and without foreclosing only the neediest

The hard truth is—and the budget committees know this all too well—that, onc the Federal government undertakes to furnish aid to a particular sector, it is nex to impossible to withdraw that aid without causing more harm by that act of withdrawal than by simple refusal to aid in the first instance. Since 1965, and especiall since the late 1970's, we in graduate and professional education have become addicted to the assistance you have provided. Our students have, for nearly a decade now been mainlining GSLs and, more recently, ALAS-PLUSes. Going cold turkey is no conceivable. The strength of their need is too great because of the price tag on ou product and the absence of other deep pockets from which to pay that price. The are legally hooked.

If their connection were suddenly terminated, our halls would no longer be available to the large number of minorities who wish to become lawyers (11,900 were in attendance in 1984-85) or the women (47,000) who are increasingly altering the tenor of the profession for the better as they breach the barriers of partnership and judgeship. Since a law degree is a ticket to power, economic or political, in America, 1985, minorities and women need more rather than fewer tickets—and only you can help them obtain those tickets. That does not mean that we appear before you as a special group, refusing to yield one nickel of our benefits. Quite the contrary. But the best we can offer—and we believe it is a very reasonable proposition indeed—is that if we cannot cut down our students' annual dosage (and, rather, may have to increase it), then our students should pay more themselves to support their habit than they have in the past, although only when they become practitioners with a pay check or draw to rely upon.

OUR PROPOSAL: A SUMMARY

We seek your continued support of our students today on what we think is a balanced basis. We want you to give with one hand and take away with the other. We would like you to increase loan limits, both annual (to $8,000) and cumulative (to $25,000/$40,000). We would like you to extend repayment on substantial debt for as long as 20 years (which was the case prior to 1983) and require lenders to permit borrowers to repay, should they so choose, on a graduated slope reflecting the expected rise in their professional incomes and, hence, their ability to manage hefty repayments. In return, we are willing to have loan rates once out-of-school adjusted to 10 percent for loans in regular term of repayment (10 years or less) and to market interest for loans extended beyond 10 years or graduated. The object is to find a modified free lunch: to increase loan limits and provide sensible repayment options to aid the students, while, at the same time, to ease the budget deficit by significantly reducing out-of-school subsidies. We think this can be done.

THE IMPORTANCE OF FEDERAL FINANCIAL AID

First, you must realize how important your programs have become to us. Law students represent approximately 1 percent of the nation's higher education population and 10 percent of those in highest education (post-baccalaureate). But, in 1984-85, our best estimate of law student GSL and ALAS-PLUS loans is slightly in excess of $300 million or 4 percent of all these loans throughout higher education and 14 percent of all federally-subsidized loans for graduate and professional students. That was the fourth year in a row that our level was at or above $300 million. Since tuition and fees at the 173 accredited law schools last fall (now there are 175) amounted to $607.7 million, Federal loans supplied slightly less than 50 percent of the cost of running the entire law school enterprise nationwide (although an additional $675 million was necessary to pay for law student living expenses, and state dollars replacing tuition at 74 schools are incalculable).

In July 1983, the Law School Admission Council, in conjunction with Sallie Mae, inaugurated its LSAAP (Law School Assured Access Program) offering a streamlined application for an $8,000 package of GSLS and ALAS-PLUSes to eligible students and accruing the interest payable on ALAS-PLUSes until after graduation. Although ALAS-PLUS volume in fiscal year 1984 amounted to only $369 million nationwide, in the period from July 1984 through June 1985 our students borrowed $48 million in ALAS-PLUSes through LSAAP alone (or 13 percent of the entire program). The LSAAP loan pool exceeded $141 million overall at the end of only its second year.

THE COST OF LEGAL EDUCATION

Our usage level far exceeds our appropriate portion based upon student numbers. There is a good reason for this besides the fact that budding lawyers are alert to the existence of the Federal programs and aggressive about using the law as it benefits them. Law school is expensive. Only a short time ago, next to buying a home, a car was the second most sizable financial investment an individual would make over the course of a lifetime. In 1985, unless you purchase a Mercedes, the cost of a car has been displaced by the cost of graduate and professional education, especially medical and legal education.

The price tag for a first-year medical student in a private school in 1983-84 was $19,501 and is probably well in excess of $20,000 now. That includes tuition, fees, room, board, books, equipment, supplies, transportation, entertainment, and other normal budget items for nine to ten months. Medical education may be notoriously expensive, but legal education does not lag far behind. It costs as much to feed, house, and clothe a law student as it does a medical one, although law students do not require stethoscopes or microscopes. In 1983-84, the average full cost of attendance figures for law students at private and public (resident and nonresident) institutions were $12,320, $6,837, and $9,005, respectively. Tuition alone increased by 10.08 percent in private law schools from 1983-84 to 1984-85 and probably rose by as much this fall. Because living costs also went up about 10 percent over the two-year period, the average student starting in a private law school this fall needs $14,250 to survive his or her first year.

What this means is that the average student starting at a private law school this September can expect to pay between $45,000 and $50,000 to obtain a degree. This fails to take into account the opportunity cost of lost income over those three years of school that may amount to as much as $40,000 in foregone salary and earnings.

Nor does the average law student in a private school represent all law students. Many attend private law schools where the tuition was in excess of $7,000 in 1984-85 and is at least 10 percent higher today. A few public schools charge as much as $8,591 to non-residents. Of the 100 private law schools, 48 had tuitions last year in excess of $7,000, with 20 charging between $7 and $8,000, 15 charging between $8 and $9,000, seven charging between $9 and $10,000, and six exceeding $10,000. The peak was $10,650. Schools that have these tuitions—and many of our very best schools fall into this category—would be out of the reach of most students from middle-class families, let alone those from low-income backgrounds, were it not for the existing levels of public loans.

Law schools, while costly, are not a special case where graduation and professional education, especially the latter, is concerned. When we conducted a survey for our June, 1984 petition to Secretary Bell, we discovered that 400 of the approximately 1900-plus graduate and professional schools we canvassed in nine disciplines had tuitions in the fall of 1983 that were in excess of $5,000, 59 of them over $10,000. The distribution of these tuitions appears in Appendix B, a table we presented to the Secretary.

THE AVAILABLE SOURCES OF TUITION FUNDS

How does a law student afford these seemingly staggering sums? The cost of going to law school can be secured from five sources: from taxpayers, through financial assistance programs and subsidies; from parents, through savings and current income; from the students themselves, through savings and self-help; from the law schools, through redistributed tuition revenues and endowment; and from other donors, such as businesses, foundations, and alumni, through gifts and grants. Although each of these sources at present shoulders some part of the burden, parents and outside groups tend to make a distinctly minor contribution. Parents usually are not a significant factor. By the time their children have been supported through college, parents are unwilling or else unable to continue to pay for further degrees, especially if other children are going to college. Four years (or more) of considerable sacrifice is about all one can reasonably require. Outside groups generally do not view law schools as needy institutions worthy of major support of a charitable nature, making fund-raising arduous. The law schools furnish loans from their own resources ($42 million in 1984-85) as well as scholarships from endowments, gifts, and tuition rebates ($66.4 million) and employment monies ($12.9 million), but there is a ratcheting effect here, because every law school dollar devoted to financial aid for some students has to be paid for by increased tuition for the rest.

Ironically, the law schools that primarily serve the needs of corporations and wealthy individuals are not supported by them. Law school is basically a socialized institution, bought and paid for by the federal and state governments. The 74 public law schools are supported directly by the 47 states in which they exist (only Alaska, Nevada, and Rhode Island have none). There is no way to calculate direct state subsidy of law schools because the support is funneled through university budgets and blended with other sources, but state aid is clearly substantial. It enables state law schools to maintain the $5,000 average differential between their tuitions and those of the private law schools. States also supply approximately $23 million in loan funds for students at private law schools.

All schools, whether public or private, are basically sustained by the array of programs you authorize. In 1984-85, we estimate, on the basis of our school-by-school questionnaires, that the following forms of Federal assistance were available to law students:

Programs:	Millions
GSL's and ALAS-PLUS'es	$300 (est.)
National Defense Student Loans (NDSL)	35
Workstudy	9.3
Graduate and professional opportunity [GPOP]	1.5
Legal training for the disadvantaged [CLEO]	.9

The grand total of $346.7 million in Federal aid represents 57 percent of law school tuition. The Federal government, therefore, is responsible for contributing almost 30 percent of the cost of the entire enterprise of legal education last year. You own a significant part of our students—and they intend to repay all of it, plus, in the form of loan repayments, enhanced taxes, and public service.

SELF-HELP

What about self-help? Why cannot a student pay his or her own bills, particularly since the most direct off-budget way of financing a law school education is for a student to pay for it himself or herself. To do that the student must accumulate substantial savings from prior summer jobs and year-round labor. The odds against anyone saving enough money to meet the first year's cost of attendance are high. To expect a college graduate in the summer before entering law school to earn enough to save even more than $1,000 is to ask the improbable. Of course, many students decide to defer their admission to law school for a year or more so that they can obtain a job in the interim and set aside much of their paycheck. Although that approach may be absolutely necessary if there is no other alternative, it does not make long-term economic sense. Each year that a college student delays attending law school, it costs her at least $3,000 and probably more in tuition (comparing tuition levels in year one and year four, because years two and three are the same) and more than $25,000 in lost income as an attorney (one year less of practice). Although one may have valid nonfinancial reasons to defer a legal education, from the cost perspective, the lesson is clear: If you do not have to wait, do not. Learn and pay right away.

Of course, going to one of the part-time programs (21,000 did it in 1984-85) permits a student to utilize the day to subsidize the night, but that solution produces its own cost in the form of diminished participation in law school as well as physical fatigue.

Almost all law schools currently assume, in calculating student need for financial aid, that a student will want and be able to work not only during the three-month summer break, but also for some limited number of hours during the school year. The American Bar Association's Standards for the Approval of Law Schools require that a full-time student devote substantially all working hours to the study of law, which has been interpreted to mean that no student may work in excess of 20 hours per week and still be considered full-time. The availability of jobs in the private sector related to law depends upon the location of the school (major urban areas offer more opportunities), but private jobs in the service portion of the economy are frequently available anywhere (though a student cannot prepare the next day's assignment while working in a fast food facility). Every law school uses its own monies and, frequently, 80 percent matching work-study money from the United States Department of Education to hire students to reshelve library books and to perform research chores to aid professors' scholarship.

Self-help is important, but it cannot foot even a significant portion of the bill.

NONSUBSIDIZED ALTERNATIVES

Where else can would-be students turn for help? As can readily be seen, they have very few other sources of support to tap. Parents, alumni, and corporations give them a relatively cold shoulder. Financial aid by way of the law schools themselves is self-defeating in terms of the impact on tuition. What is the matter with unsubsidized loans in the private market as a way of financing legal education? Nothing, if some were available. The dismal history of ALAS-PLUS demonstrates the difficulty of persuading banks to offer loans without in-school Federal subvention. There is not much of a market for unsecured personal loans for 22 to 24 years-olds with no credit or work history, no present earning capacity, and no collateral.

The LSAC, on our behalf, has entered into discussions over the past few years with a variety of lending institutions to see if the LSAC's considerable reserves might provide a basis for leveraging a volume of unsubsidized loans. Unfortunately, the cost to the student of the loans that have been under consideration would add thousands of dollars more to the cost of going to law school. Sallie Mae has recently begun a supplemental, non-Federal loan program for selected graduate students, but the requirement of a satisfactory credit record or a qualified co-maker is likely to render many ineligible, indeed, precisely the students who require the most aid. The lack of subsidy means substantial boosts in the real cost of going to law or medical school or pursuing an engineering degree, boosts that exacerbate the problems of steep tuitions and "expensive" GSLs. $15,000 in GSLs to be repaid become $20,658 at the start of repayment by the alchemy of the Sallie Mae GradEd Financing Loan Plan, which takes interest and accrues it on a compounded basis every six months (at a 13 percent interest rate; it would be $18,653 at 11 percent).

GSLs are hardly a bargain once one leaves school. They have to be repaid on an 8 percent basis, which, assuming $5,000 borrowed for each of three years and repaid over ten, results in $6,000 of additional interest cost to add to the tuition bill. ALAS-PLUS loans of $3,000 for each year lead to $2,830 in accrued interest payable as of the time of repayment and $7,098 in further interest costs over ten years. That means that if a student borrows $24,000 to go to law school using both GSL and ALAS-PLUS, whatever the tuition level is, the student must add to principal repayment of $24,000 a total in interest of $15,918 payable over ten years. Thus, the average loaned-out student entering a private law school this fall will pay almost $63,000 over thirteen years for the privilege of living and obtaining a Juris Doctor degree, of which only $25,120 represents tuition. If, because of Congressional action, market loans of $24,000 at 13 percent were to replace GSL and ALAS-PLUS this staggering bill would rise by another $23,400 if interest accrued and $15,600 if interest were payable during school, including $3,120 that a student would have to come up with during the course of the third year.

HOW SUBSIDIZE?

(1) *Increased GSL loan limits.*—The continued need for GSLs and ALAS-PLUSes ought to be apparent. If you were to decide that there are quite enough lawyers to go around, thank you, you would leave a lot of anxious women, blacks, Hispanics, Indians, and middle-class white men shut out, on the outside, looking in. If that is an unconscionable resolution of the cost dilemma, what other possibilities exist?

We begin our suggestions for change, ironically, by asking for a program increase. The Congress ought to mandate the availability of $8,000 a year in GSLs to any graduate or professional student (up to $25,000 overall) able to qualify for that sum on the basis of the intersection of the student's income (resulting in the calculation of an expected contribution), other financial aid, and cost of attendance, with a cumulative GSL debt limit of $40,000. The Secretary has had the legal power to take these actions for 13 years. His purposeful refusal to act this spring in response to our nine-month-old petition places the ball squarely in your court. If you do not respond, the loan limits will remain at the level they have been since 1976, increasingly out of touch with tuition realities.

In June of 1972, Congress amended the Higher Education Act of 1965 to require the Commissioner of Education (now Secretary) to prescribe regulations enabling him to determine whether or not a higher annual loan limit for GSLs would be warranted in order to have adequate subsidized loan insurance programs for students "engaged in specialized training requiring exceptionally high cost of education." Act of June 23, 1972, Pub L. No. 92-318, Sections 132A (a)(1) and 132A (b)(1), 86 Stat. 261, contained in 20 U.S.C. Sections 1075 (a)(1)(c) and 1078 (b)(1)(A) (iii) (in 1978 "cost" became "costs"). No such regulations have ever been issued, with the exception of the interim final regulation issued on June 30, 1977, raising the annual limit to $10,000 solely for health profession students and only for the 1977-78 academic year. 42 C.F.R. 33290-292.

In 1980, the Congress further amended the Higher Education Act of 1965 to permit the Secretary to increase the cumulative loan limit above $25,000 for "graduate or professional students who are pursuing programs which the Secretary determines are exceptionally expensive." Act of October 3, 1980, Pub. L. No. 96-374, Title IV, Section 412 (f), 94 Stat. 1417, contained in 20 U.S.C. Sections 1075 (a)(2) and 1078 (b)(1)(B). The Secretary has never made the determination and refused to do so in March.

The result has been a freeze in individual aid that renders GSLs progressively less significant (although nonetheless vital) as sources of tuition payments. The maximum annual loan available to graduate and professional students was fixed at $1,500 in the original act in 1965, altered to $2,500 in 1972, and changed, for the final time, in 1976 to $5,000, with Congress fully aware that this cap had a safety valve in the form of the mandate to the Secretary, since 1972, to issue regulations permitting higher limits for exceptionally costly programs of study and the Secretary's authority to implement those regulations when he determined to do so. The Secretary's studied inaction has eroded the promise of GSLs. Pointing to the advent of ALAS-PLUSes in 1980, as Secretary Bennett did in his response to us, is no justification for refusing to alter the GSL limits.

Congress clearly assumed in 1976 that it would no longer have to raise the loan limit itself on a seven (1965-72) or four-year (1972-76) cycle through the unpredictably lengthy legislative process, but that the Secretary would accomplish the same objective through the quicker, targeted regulatory authority you delegated to him. Enactment of the ALAS-PLUS program in 1980 did not change the situation, since Congress not only did not remove the Secretary's authority to raise the loan limits, but also conferred additional authority upon the Secretary to raise the cumulative loan limits so that increases in the annual limits might be effectively used by graduate and professional students. $9,000 in ALAS-PLUSes does not adequately compensate for an over 50 percent diminution in GSL purchasing power.

The $5,000 limit has been frozen in place for nine years, while average law school tuitions in private schools have risen from $2,856 in 1976 to $6,898 in 1984 or 142 percent and public law school tuitions have climbed from $863 to $1,803 or 109 percent. Costs of attendance associated with room and board have at least doubled during that same period, along with the Consumer Price Index.

If the $5,000 limit applied in 1976 had been raised annually to reflect a 10 percent average increase in the most costly forms of graduate and professional education - and 10 percent is less than the actual cost increase in law (or medical) schools - that $5,000, would have become $11,790 as of 1985. An increase to $8,000, as proposed here involves only a 6 percent annual increase, far below actual tuition boosts, let alone those in cost of attendance (which incorporates cost of living items that have also risen well over six percent annually for much of that period).

The National Commission on Student Financial Assistance's Report, "Signs of Trouble and Erosion, A Report on Graduate Education in America" (1983) underscored the need for this boost in loan limits in its Conclusion (at 47) and Discussion (id. at 48):

> Limits should be increased on the total amounts that students, particularly professional students, may borrow.
>
> The total amount that students may borrow should keep pace with costs, especially for students in the health sciences. If there is not some modification of loan limits, students will find themselves unable to continue their graduate work.

Revised cumulative loan limits have to be crafted to complement the annual ones if the ceiling on the former is not to impose an artificial ceiling upon the latter. If the increase to $8,000 in the annual loan limit were to be adopted, the cumulative loan limit would have to rise to at least $40,000 from $25,000 in order to accommodate the additional $3,000 for the four years that many of these programs of study entail (e.g. dentistry and medicine) plus undergraduate borrowing. A separate and distinct graduate and professional cumulative loan limit of $25,000 would permit law students to borrow the full $8,000 for each of three years (if eligible) or business students to do the same for two years, but would restrict medical students to no more than an average of $6,250 a year, regardless of the level of their borrowing as undergraduates.

(2) *The Problems of Increased Loan Limits.*—(A) *Cost.*—The Secretary rejected our administrative request to raise the GSL annual loan limits to $8,000 for two reasons: the increase in subsidy would be too costly and the increased debt burden would become unmanageable. The Secretary was wrong on both counts. His cost calculation of $180 million for five years ($37 million a year) brought about by a $480 million increase in loan volume in the initial year is yet another instance of his acknowledged wizardry with numbers. A dollar volume increase projection of $480 million can be translated into 160,000 graduate students taking out $3,000 more each year in loans. All graduate student loans this fiscal year number 630,000 according to the Secretary's projections, which are themselves soft at the edges, since, as Dr. Elmendorf has regularly admitted in appropriations hearings, the Department "does not collect specific data on graduate student loan size" and the information the Department does obtain through data exchange with the guarantee agencies "does not provide accurate information on graduate student borrowing".

It is very unlikely that one out of every four graduate student borrowers could or would borrow an additional $3,000 annually. Available data on the average graduate student loan in 1985 establish it at $3,285, which suggests that many are either not eligible for the full $5,000 because of expected family contributions and other financial assistance (and, thus, would not become eligible for one dollar over $5,000) or are eligible, but choose not to apply to borrow that much (which would not change if $3,000 more were available). When we were preparing our petition, we obtained data on the GSL volume at 175 graduate and professional schools with high tuitions (over $5,000) and determined that, even if every student there had borrowed to the $5,000 limit and was both willing and able to avail himself or herself of the new $3,000 in full, which is a highly unrealistic set of assumptions, loans would, at the most, increase by $224 million resulting in a maximum net cost to the government of $18 million the first year.

The recent decrease in T-bill rates to approximately seven percent fixes the cost of interest subsidies for each new $3,000 in GSLs at $165 (eight percent in-school subsidy plus two-and-one-half percent in special allowance, less five percent in cost reduction attributable to the origination fee). That amounts to $26.4 million for each $480 million in new loans during the first year in which the loans were extended or $79 million over three years. Because the origination fee is not available as an offset in the second year and beyond in the life of a loan, the cost per $3,000 goes up to $315 or $50.4 million overall each year the loan is outstanding while the student is going to school after the first year.

Our 1984 estimate of an outlay at the low end of the $20 to $30 million range, or under one percent of the total present GSL budget, is more defensible, although we are not recommending an increase without some offset. Along with ACE, we are willing to accept an increase in the GSL interest rate payable once out of school to 10 percent, which would more than compensate for the expanded loan limit provision.

(B) *Manageability of debt burden.*—The Secretary, in disposing of our petition, also emphasized his concern that higher cumulative loan limits would jeopardize students' ability to pay, resulting in an increase in defaults. There is no doubt that the Secretary has identified a serious problem. The coming crisis in the financing of legal education is the ability to repay borrowed monies that are likely to constitute the bulk of what was spent to attend law school. Debt burdens now are high and mounting. Debt burdens in the future may well prove impossible for some young and even middle-aged lawyers to handle. There could be significant impact upon career choices (how can less than the wealthiest of graduates afford to elect public interest work or legal services?), upon family formation (how can a graduate afford the additional costs of marriage unless the spouse-to-be is self-supporting or independently well-to-do?), and upon capital investment (how delayed will the purchase of a home—or of a car—have to be?).

According to 1982-83 statistics complied from law students who filed GAPSFAS forms, law students who apply for aid (well over two-thirds of all students) had already accumulated a median debt of $4,700 at the time they entered law school and were leaving law school with an estimated cumulative debt of $14,700, with the upper quartile at $18,100. Other estimates of average debt upon graduation in 1983 place it as high as $15,676.

Even if neither the GSL nor the ALAS-PLUS maxima are adjusted upward in the next few years, many graduates of the class of 1986 and beyond are likely to emerge with as much as $34,000 in debt if they use all of their GSL and ALAS/PLUS eligibility as part of LSAAP. The average student in the next five years may have less debt than that, but considering the debt levels for law graduates rose by 20.5 percent between 1981 and 1983, average debt should approximate $20 to $21,000 by 1986. Those students from low-income backgrounds who attend the highest cost private law schools will have even more debt than $34,000 to the extent that they obtain NDSL, state, or school loans (all of which, when taken together, amount to only one-sixth the size of the GSL program of law students).

Can a beginning lawyer earning $30,000 a year readily sustain that debt? The answer is "no" if the repayment period is restricted to the basic 10-year term. Even if the first-year lawyer obtains one of the best corporate law firm offers in New York or Washington, D.C., debt repayment within a 10-year period will provide difficult. The following table does not take into account the tax savings involved in the interest deduction for loan repayment, but suggests the dilemma:

10-YEAR REPAYMENT PERIOD

Amount borrowed	Program	Interest rate—percent	Monthly payment	Annual payment	Percent— Gross income	Percent— Disposable income
1. $25,000	GSL	(a) 9	$316.69	$3,800	12.7	15.9
		(b) 8	303.32	3,640	12.1	15.2
2. $9,000	PLUS/ALAS	12	129.13	1,550	5.2	6.5
3. (a)	1a+2 combined		345.82	5,350	17.8	22.4
(b)	1b+2 combined		332.45	5,190	17.3	21.7
4. $9,000	PLUS/ALAS	12	167.87	2,014	6.7	8.4
Interest accrued and compounded through LSAAP=$11,700.						
5. (a) 1a+4 combined			494.56	5,815	19.4	24.3
(b) 1b+4 combined			471.19	5,654	18.8	23.7

Even if first-year earnings in 1986-87 are in the $50 to $55,000 range, a student who has made full use of LSAAP and borrowed $34,000 with interest on the ALAS/PLUS portion accrued and compounded (Table 1, line 5 and that might be $11,830 rather than $11,700 if an extra six months of accrual were tacked on) would still have to allocate 12.1 percent of the gross income received and 18.1 percent of the disposable income to pay off the loan. (On the other hand, a student who attended law school a few years earlier now earning $30,000 after borrowing $21,000, is repaying 9.8 percent of gross and 12.2 percent of net, assuming all of the $21,000 were in GSLs begun in 1979 or 1980 at 7 percent.) The only published studies of debt manageability indicate that these are intolerable debt levels, because the most generous analyses suggest that no borrower can afford to repay educational debt in excess of 15 percent of pretax income (some go as low as a 3—6 percent range) or 8 percent of post-tax income.

Is there a way to avoid being overwhelmed by the prospect of repayment? The only immediate solution, other than the highly improbable one of replacing loans with nondebt financing, such as scholarship grants or more, better-paid work in derogation of the classroom, is to make loan repayment terms more flexible. Congress did precisely that in 1980 when it permitted Sallie Mae to engage in loan consolidation. By virtue of consolidation, while it existed until its expiration on October 31, 1983, GSLs and NDSLs could be combined into a 7 percent package extendable to as much as 20 years (in practice, only for loans totaling more than $16,000) and with provision for graduated repayment options. Thus, a borrower could have chosen either to make level payments over the course of 20 years or started at a low level and then accelerated with increases every two years, either gradual or steep. (The gradual increase would have been 6.3 percent over the base every 24 months, if the full 80 month repayment period had been selected.

The combination of the 20-year payout and the gradually accelerating repayment enabled students who were uncertain of their initial earning capacity or who desired to undertake some form of public service to select the graduated option and attempt to shoulder their revised debt burden, although even then there was no easy repayment. The table below contrasts the situations for repaying $34,000:

Repayment term	Annual repayment	$30,000 percent gross income	Percent disposable income
10-year	$5,815	19.4	24.3
20-year level	$3,168 (first 2 yr)	10.6	13.3
Graduated option	$2,544 (first 2 yr)	8.5	10.7

The consolidation-graduated repayment provision of GSLs and NDSLs (Sallie Mae did not consolidate ALAS/PLUS loans) was the most vital feature of the loan programs to potential and graduating law students. It might have forced the overall cost of loans to rise (to repay $34,000 over 10 years leads to $58,147 in total repayments as opposed to $84,905 over 20 years), but it meant that the great bulk of repayment occurred when inflation made each dollar repaid worth less than 50 cents of the present dollar.

The Secretary correctly realizes that greater accessibility to extended repayment beyond 10 years and graduated repayment options is crucial if law students are to be able to afford repayment of current maximum loan levels and even more so should those levels be raised.

Dwight Horch of the Educational Testing Service has published a detailed study offering some useful guidelines entitled *Student Loan Limits* (1984). Horch used estimates of borrowers' projected incomes according to the job field or profession they expect to enter and applied proportions of those income streams to debt repayment in light of other consumption needs based upon Bureau of Labor Statistics' consumption budget standards. He determined that, given a repayment schedule of 15 years with a graduated repayment option tied to anticipated increases in salary over time, students entering graduate schools of business in the fall of 1985 could afford to borrow up to $30,000 and still repay it without significant economic strain. Similarly, entering law students could borrow up to $35,000 and medical students well in excess of $35,000 and, indeed, as much as $100,000 if repayment were deferred until the first year of practice. *Id.* at iii, 25-27, 29-31. Doctoral candidates, according to Horch, should be able to repay as much as $27,000, while master's level students could readily afford $20,000. *Id.* at iii, 30. Only Ph.D. candidates would be subject to the substantial potential of default should they borrow to the limit, but, in reality, under the existing lower ceiling, they are the least likely group of graduate students to borrow large sums.

Manageability of debt, therefore, is linked to loan consolidation and extended, graduated repayment. There is no question that alterations of the current law along these lines would increase costs by extending the period for which the Federal government is liable for fluctuating special allowance payments that now approximate 2.5 percent of each dollar due, but have been and may, in the future, be considerably higher. The solution we propose is to combine generous consolidation and graduated repayment provisions with a change in the interest rate applicable to such consolidated loans during any period of repayment that extends beyond 10 years. There is no reason why, in years 10 or 11 or beyond, well after the initial phase of professional practice when income is lowest and women professionals are most likely to leave the labor force temporarily to have a child, a professional should not be required to bear, without any governmental subsidy whatever, the full cost of repayment at market interest rates negotiated with the the lender.

The apparent tradeoffs are simple, at least on the surface:

(1) Congress should reauthorize loan consolidation encompassing all Federally-subsidized or guaranteed loans (NDSLs, HEALs, ALAS/PLUSes, GSLs) subject, of course, to a debt dollar minimum, such as $5,000;

(2) repayment periods should be staggered according to the gross size of the student's debt burden, with a 20-year period for repayment permitted for cumulative debt in excess of $15 or $16,000;

(3) the offering of repayment on a graduated basis should be made a "mandatory" option, that is, the consolidating lender would have to permit a borrower upon graduation to select from among sloped repayment schedules that reflect that the normal upward course of professional income over the 20 years following consolidation, along the lines of Sallie Mae's "Options Selector" that was prematurely inferred in 1983; and

(4) Federal guarantees against default should be continued for the full extended repayment period.

In return for these provisions:

(1) the consolidated loan should bear interest not at 3 or 7 or 8 or 9 or 12 percent or some complex composite rate of all the prior loans now consolidated, but at 10 percent for the first 10 years and, thereafter, at a rate negotiated between the borrower and lender reflecting fluctuating market levels, but either at a fixed rate of interest based upon the average rates of the most recent years or, if floating yearly, nonetheless subject to some ceiling on the degree of increase from year-to-year and over the life of the loan, along the lines of many variable rate mortgages, to protect the borrower against the most extreme interest tides such as occurred in 1980 and 1981, and

(2) the Federal government could charge the borrower a higher guarantee fee to protect against potentially higher dollar levels of default in the 10th to 20th years when larger payments would become due because of the graduated method of repayment.

The price tag on this tradeoff would be net benefit to the U.S. Treasury. The $1.537 billion the Federal government sought in budget authority in fiscal year 1985 for special allowances would be significantly reduced over time because allowances would not be paid on consolidated loans and, during the period of repayment for regular ten-year loans, no special allowance would be necessary unless 91-day Treasury Bill Rates averaged in excess of 13.5 percent (a rare occurrence). Defaults would be far fewer than might otherwise be the case because of the extended period for and slope of repayment designed to mirror income flow. Those defaults that did take place would be reimbursed through guarantee fees.

WHAT WE HAVE NOT SOUGHT

We have not asked you to support income-contingent repayment, however desirable that might be from the perspective of our students because of its administrative complexity and cost, which might well alienate the very banks and lending agencies that are otherwise our strongest allies with respect to these issues. We have not asked you to support an income-dependent loan program along the lines of Congressman Petri's IDEA because, however strongly he argues that his intent is to add one more supplemental loan program to the existing mix, we are nervous that it would displace GSLs and ALAS-PLUSes entirely and we are certain that the Internal Revenue Service would never agree to complicate its life even more (the Silber plan is, hopefully, dormant or, better yet, dead). We have not asked you—as we did in 1979—to support forgiveness of loans for those professionals who are only modest wage-earners because they work in the public interest for private non-profit institutions or state or local governments. We sensed your unhappiness with the costs and precise dimensions of such a program feature then and graduated repayment, if mandated, would solve most of these problems unless graduates become permanent public servants. We do ask—but we propose to give at the same time.

OTHER PARTS OF THE HIGHER EDUCATION ACT

CLEO

The CLEO program (legal training for the disadvantaged in Title IX, Part D, administered by the Council on Legal Education Opportunity) has been in existence since 1968 by virtue of the beneficence of several foundations and, for a few years, the Office of Legal Services as part of the then poverty program. The concept was to encourage minority participation in the profession by identifying persons who would otherwise be unable to gain admission to law school, given their marginal academic performances and backgrounds of economic disadvantage, and by intensely training those persons in six-week summer institutes around the country so as to enable them both to be admitted and be relatively competitive with their classmates.

The concept worked. It became part of the higher Education Act in 1972 and, for the next twelve years, received no more $1 million in appropriations annually, despite an unlimited authorization through fiscal year 1980 and a $5 million ceiling thereafter, stepped up to $10 million in fiscal years 1985 and 1986. In fiscal year 1985, $1.5 million was provided, resulting in a total of slightly less than $13.5 million over the entire course of CLEO's existence. The impact of these monies on the law schools has been measurable. As of 1983 (the latest available data), 3,723 persons had participated in CLEO summer institutes, 3,417 had entered law schools, 1,951 had graduated, with another 600 then in school expected to do so. Of all those CLEO law school graduates who sat for the bar examination in a state and about whom CLEO has reported information, 89.3 percent passed the bar. This performance compares favorably with regular law graduates. The CLEO institutes have been conducted over the past three (1983-1984-1985) summers at the Universities of Arizona, Arizona State, Arkansas, California at Berkeley, Florida at Gainesville, Iowa, Nebraska, Richmond, South Carolina, Utah, and Wisconsin as well as at the law schools at Brigham Young, Dickinson, Georgetown, Rutgers, San Diego, Santa Clara, Southern, and Washburn.

CLEO helped sensitize law schools to the need to recruit minorities, admit them, and support them academically through their law school years. But CLEO's job is not complete. Law schools want to attract qualified minority candidates and have been willing, since the advent of CLEO, to contribute half of the operating costs of the summer institutes and to waive all tuition and fees for CLEO fellows. Law schools have become major partners in this program.

The resources of law schools are not, however, unlimited. They have not been able to afford in the past and are certainly not going to be able to finance in the future the non-tuition needs of the approximately 500 to 550 CLEO graduates who attend law school each year. From the outset of the program, CLEO itself has been subsidizing those requirements. The fellowship stipend started at an average of $1,500 in 1968, fell to a yearly average of $800 during 1969, and held firm at $1,000 from 1970 through 1984 when it rose to $1,750. From $1,500 to $1,750 over 17 years is a 17 percent increase. In those same years, the cost of living for law students has more than trebled, with the projected cost of room, board, and necessaries well in excess of $5,000 at nearly every school.

Law schools do not have the scholarship resources to make up the difference. $1 in CLEO money has traditionally generated at least $3 in matching law school money and, in recent years, given the rise in tuition, even more law school dollars. There is, however, a breaking point—and full law school support for CLEO students in a way law schools support no other students is that point. Despite the Department's assertion in the 1986 appropriations hearings, CLEO is not "likely [to] attract financial support from private sources to continue its activities." CLEO students are the ones least willing to shoulder major debt burdens in order to attend law school. However available and bountiful GSLs and ALAS-PLUSes may be, CLEO candidates come from backgrounds in which debt is viewed appropriately as a problem-creator, not a problem-solver. If the choice is going heavily into debt or selecting another career, they are likely to look elsewhere. The schools and the professions need and want them.

The solution is to continue CLEO for the life of your reauthorization bill at a $5 million authorization level which would cover approximately 600 fellowship stipends at the same level as GPOPs and other graduate scholarships (ca. $6,000) as well as the seven summer institutes and CLEO administration.

GPOP

The Graduate and Professional Opportunity Program (GPOP) or Part B of Title IX of the Higher Education Act has been in existence since 1978, with $11.750 million available in funding this year. Law schools have been significant beneficiaries of GPOP because of the law schools' major efforts to attract and enroll minority students. The Department's data indicate that from 1982 to 1984, of the 3,394 fellowships awarded, 516 of 15.2 percent were in the field of law. Those 516 fellowships or 175 a year on the average are very important to the law schools because the average stipend of $8,200 tends to attract the best and brightest minority students. Only a handful of law schools can afford to offer full tuition scholarships. No other Federal fellowship programs aid law students. Loans are the only alternative for financing $8,000—and they operate as a deterrent repelling the best and brightest from applying to law school rather than encouraging them to do so.

We ask you to continue GPOP unimpaired at the existing authorization level.

LAW SCHOOL CLINICAL EXPERIENCE—THE PROGRAM

The clinical legal education program has been on the books for 18 years, but in operation for only ten. In the fall of 1968, the Congress authorized the Commissioner to make grants to law schools for up to 90 percent of the cost of clinical legal education courses, defined as those involving the representation of actual clients by law students and their supervising teacher-lawyers, with emphasis upon offering experience in litigation. Seven and a half million dollars a year was to be equitably distributed throughout the the United States, with a maximum of $75,000 per school.

From the fall of 1968 until the fall of 1978, the Commissioner of Education did not make one such grant. Title XI of the Higher Education Act remained dormant and unfunded. Title XI was even reauthorized in 1972 to continue through fiscal year 1976 and in 1976 to continue through fiscal year 1979. But it languished without an appropriated cent until fiscal year 1978, when it was approved as a demonstration project for one year at the level of $1 million. Since then, with Title XI having become Title IX, Part E in the 1980 rewrite of the Act, nearly $14 million has been expended on clinical legal education around the nation. In the past three award years, 1983-1985, 119 grants have been made, ranging in size from $14,000 to $54,000, to schools in 39 states and the District of Columbia for projects ranging from the more traditional (criminal defense, landlord and tenant, consumer, elderly, general civil litigation, appeals, juveniles, prisoners) to the more unusual (disabled, mediation, immigration, administrative law, tax practice). Each year 20 to 30 schools, -and, occasionally, more—are denied grants because the available funds are insufficient. Between 1,000 and 2,000 students participate each year in a supervised clinical experience under this program, handling as many as 20,000 cases.

Should the Congress continue to fund clinics? The answer depends upon an evaluation of that approach to legal education and the potential for fiscal support from foundations or the law schools themselves.

THE VALUE OF CLINICS

Since it first began to flower in 1968, after some stirrings starting in 1959 with funding from the Ford Foundation and assistance from the National Legal Aid and Defender Association (through the Council on Legal Clinics) and, slightly later in 1965, from our Association (through CLEPR or the Council on Legal Education for Professional Responsibility), clinical legal education has more than proved its public worth. It has demonstrated its value as a critical and essential part of quality legal education by enhancing substantive academic learning through lending vivid human reality to black letter law and employing traditional analytical tools in a context of professional problem-solving. It has demonstrated its practical value as a training mechanism by enabling students to acquire the basic lawyering skills that will assure their competence in serving the public, particularly in court. It has demonstrated its value as a service and contribution to society by furnishing legal assistance to hundreds of thousands of individuals unable to afford lawyers. It has demonstrated its value as a superior method for teaching concepts of professional responsibility to young lawyers by exposing law students to the kinds of ethical dilemmas that lawyers confront daily and by forcing them to make responsible choices instead of merely abstractly analyzing the issues.

Problem-solving, skills training, public service, and ethical responsibility: these are at the core of the best in legal education and, especially, clinical legal education. One reason for its success is its capacity for challenging the student. Rules come alive when applied to human situations. A legal issue that could seem abstract and theoretical in the classroom for many students becomes emotionally engaging when a student must handle it effectively to keep a client out of jail or from being evicted.

The real secret of the effectiveness of clinical education—and also, unfortunately, of its expensiveness—resides in the extreme closeness of supervision, the low ratio of faculty or clinical instructor to students that enables the student to receive feedback about every step he or she takes, every strategy he or she selects, every interview or every examination he or she conducts, every paper he or she files. The heart of clinical education really is Mark Hopkins on one end of the log (or, preferably, the courtroom) and the student on the other. It is this close supervision that prompts the student constantly to reflect on his or her lawyering experiences, to question the meaning and assumptions of his or her professional behavior, to become critically self-aware, and, ultimately, to carry this analytical process on into life outside of law school so that the graduate can continue to learn on his or her own.

The inevitable byproduct of paying this kind of close attention to the lawyering process is a better understanding of the way lawyers behave and practice and, thus, an informed basis for improving the delivery of legal services to all segments of our population as well as for exploring the major structural inadequacies in our legal system that inhibit the realization of our goal of equal and impartial justice.

Another reason for the need for clinical legal education is its capacity for developing practical skills. Most graduating law students who have not had the opportunity to benefit from clinical legal education emerge from law school basically unequipped to put a witness on the stand or otherwise operate effectively in a courtroom. The courts have objected and objected vociferously.

Clinical legal education is the major method by which law schools address these concerns. Of course, courtroom appearances constitute a small fraction of the activity of lawyers in the United States. The great bulk of law practice consists of fact-gathering, interviewing, counseling, negotiation, mediating, or drafting. Clinical legal education courses offer the chance to acquire these skills in a realistic setting and to observe the performance of these legal tasks by highly competent role models in the form of teacher-supervisors. The essence of clinical legal education is the strenuous, hands-on effort to guarantee that the education lawyers-in-being receive is a meaningful one that will prepare them, whether they eventually service corporations or the middle class or defend the poor, to perform in such a way that the members of the profession once again become respected not merely as ardent advocates, but, more importantly, as the servants and protectors of the life, liberty, and property of every citizen.

A further substantial social benefit flowing from clinical legal education results from improvements in the delivery of legal services to the public. There are at least three ways in which this takes place: first, through the direct provision of services, with a minimum of 20,000 clients aided through this program alone; second, through experimentation with alternative delivery systems for legal services that bypass the more traditional private practitioner model in furnishing services to groups that might not otherwise be available to afford vital legal aid; and, third, through instilling a continuing commitment in law school graduates who have experienced clinical legal education to provide services to the public free of charge or at a nominal cost. The student who has been personally and intimately involved in furnishing legal services to the poor or other groups that do not have easy access to representation will recognize the impact of those services. This student, after graduation from law school, will not readily forget the importance of applying his or her newly acquired skills to public ends. It is education for this type of public responsibility that the law schools hope to be able to provide more effectively under the auspices to Title IX. And experience tells us this works.

WHY CONTINUE THE CLINICAL PROGRAM?

If nearly every accredited law school now offers "some form" of clinical education, why is this program still necessary? Could it not be terminated because, in the Department's words, "the program would continue in the absence of Federal support"? The answer is that clinical education is exceedingly expensive, usually costing at least three to five times as much to deliver one credit hour as a traditional large classroom course. In some instances, a clinical credit may require as much as $500 to $1,000 of law school input.

Law schools traditionally have functioned as one of the least expensive forms of graduate and professional education. The average student/faculty ratio in law schools in 23:1, the highest in graduate or professional education. By contrast, medical schools commonly rely on a ratio of 3:1 and business schools a ratio of 10:1. For clinical education to be effective it should operate on a teacher/student ratio of less than 10:1, and, preferably, 6:1. This inevitably generates higher instructional costs than legal education has been structured to handle. In addition, expenses of operating "teaching law offices" include expenditures for administrative and secretarial staff, additional library facilities, telephone, office supplies and duplicating facilities.

As the result of budgetary constraints, no more than one-third of all law students now have the opportunity to participate in clinical education. In this era of dwindling educational resources, clinical education—the most, expensive form of instruction—is inevitably the first to be frozen or curtailed, often because the universities that control law school budgets put the squeeze on.

Where else can law schools look? From 1968 through 1980, CLEPR was available. CLEPR has not been in existence for the past five years. Meanwhile, law school applications have decreased, threatening the tuition base. Thus, the two principal sources of funds for clinical legal education (foundations and tuition) have been being restricted simultaneously. If the law schools are to achieve their commitment to providing high quality education and instilling a sense of public responsibility in their graduates through clinical education, assistance must be forthcoming from the Federal government. Without Federal aid, clinical programs will be increasingly understaffed and their crucial educational goals in jeopardy.

We are hardly asking the Federal Government to shoulder the entire burden or even most of it. It is our hope that this program would expand modestly over the next five years to provide as much as $7.5 million to support clinical legal education, with a maximum grant of $75,000 per school enabling almost every accredited school that so desired to have one stably financed clinic in operation.

SUGGESTED LEGISLATIVE MODIFICATION

Our suggestions for modifications in the language of Title IX, Part E, are few. In the program's early years, it made sense to restrict its funding to new or expanded clinical programs. It is unrealistic in 1985 and beyond to expect law schools to create new clinics every year. The funds ought to be permitted to go to support quality ongoing or continuing clinical programs as well for new or expanded programs, with no preference between the two. The legislative history of the 1980 revisions of part E made it clear that, despite that broadening of the nature of clinical programs supported under the law to include training for lawyers in a wide variety of lawyering skills through simulated experience as well as actual client services under supervision, priority in the award of funds would be given, because of the expensive supervision involved, to programs providing legal experience in the preparation and trial of actual cases, including administrative cases and the settlement of controversies outside the courtroom. This priority should be expressly incorporated in the law.

We thank you for this opportunity to express the views of legal educators, law school administrators, and lawyers on the critically important questions of access to legal education in particular and graduate and professional education in general as well as specified programs that benefit our schools. We realize that your redrafting of Higher Education Act at a time of serious concern about the size of the deficit is not pleasant or easy. We have come before you to help, not hinder you in the course of your deliberations by pointing out some acceptable, significant cost savings in the form of bathwater, while asking you to preserve the baby.

APPENDIX A

U.S. DEPARTMENT OF EDUCATION,
THE SECRETARY,
Washington, DC, March 12, 1985.

GLENN S. GERSTELL,
Milbank, Tweed, Hadley & McCloy, International Square Building, Washington, DC.

DEAR MR. GERSTELL: Thank you for your letter and supporting documents to former Secretary Bell dealing with your request that loan limits be raised for graduate and professional students under the Guaranteed Student Loan (GSL) program. We have carefully reviewed the analysis and information you provided. However, we believe raising the limits at this time is not appropriate given our budget proposals and the increasing need to target scarce student aid funds to the neediest students.

While I recognize that tuition and fees have increased with no concurrent rise in the loan limits, no evidence is presented that students are currently unable to attend graduate or professional schools who would be able to do so if they could borrow additional funds.

In your letter, you indicate that loan limits could be raised without jeopardizing a students' ability to repay the loan. However, the report you cite in support of your statement fails to recognize that aggregate debt for many students may already be high due to borrowing under other programs and from other sources. For example, graduate and professional students may borrow $3,000 a year under the PLUS program for a cumulative total of $15,000. In addition, students in certain medical programs may borrow up to $20,000 per year for a cumulative total of $80,000 under the HEAL program. The HEAL Law School Access program also allows law school students to receive up to $8,000 annually. Consequently, medical students may currently qualify for $28,000 annually for a cumulative total of $120,000, and other graduate and professional students may qualify for $8,000 annually for a cumulative total of $40,000. The press for increasing the GSL loan limits would seem to stem from the fact that GSL is more heavily subsidized. HEAL and PLUS are more costly to the student and less costly to the government.

If loan limits for GSL were increased as you recommend, a student borrowing the maximum available amount would pay $449 per month over the ten-year repayment period. The same student now pays $303 per month under current borrowing limits. While you consider this increase manageable, the manageability of the repayment with increased loan limits is subject to considerable debate particularly if the debate included no evidence to show that default rates would not increase. For example, the study cited by you, "Student Loan Limits" (Horch, 1984), adopts one specific definition of manageable debt for students borrowing to attend medical school, but the definition is not necessarily one which we would accept. The suggested cumulative limit of $37,000 appears to be based on Horch's conclusion that this would be a manageable level of debt for medical students only if you assume that repayments begin in the first year of practice, not during residency as current regulations now require. In fact the Horch study concludes that:

"If students must repay their loans on a 10-year equal monthly installment basis, the currently permissible GSL borrowing limits...appeared to be too high in relation to the ability of most groups of students to make the maximum monthly repayments associated with the loan limits, especially during the crucial first years of repayment."

In regard to other graduate and professional students, Horch concludes that they may have difficulties repaying loans. Increasing loan limits would only exacerbate these difficulties and increase the number of defaults.

To avoid increases in defaults, an increase in loan limits would likely require an extended repayment period (15 years or more) as well as greater accessibility to graduated repayment options. However, these policies would dramatically increase the costs associated with an increase in loan limits.

Moreover, any increase in the loan limits for "exceptionally expensive" graduate and professional schools would most likely encourage a similar increase for undergraduate schools since the case in support of such an increase would be just as valid at the undergraduate, as at the graduate level.

Based on current regulations regarding repayments, the Department's Office of Postsecondary Education has estimated that the subsidy cost for your proposal would be $185 million over the first five years. Total loan volume would increase to $480 million in the initial year, all of which are much higher estimates than the estimates made in your proposal. If the repayment period is extended or payments are graduated, the costs of the program would be even higher.

Because I understand that tuition and fees for graduate and professional schools have risen, I support programs that provide financial assistance for students attending these schools. The Department of Education and the Department of Health and Human Services now administer four programs, NDSL, PLUS, HEAL, and GSL, to meet the needs of the graduate and professional students you describe in your letter. Through these programs, the Federal government maintains its commitment to aid graduate and professional students. Also, we recently learned that a new loan program for graduate students trying to pay their way through business administration, law, engineering, and medical school has been started by the Student Loan Marketing Association. This plan is designed to help students with heavy tuition bills and is offered as a supplemental, non-federally related loan program to meet financing needs over and above those targeted by federal and state programs.

We will continue to study this issue by looking carefully at all the related variables such as the length of the repayment period, repayment terms, loan consolidation, default rates, cost of education, cost to administer the program, and others that would require thorough study before making a decision to allow students to borrow more.

Every effort needs to be made to hold down the cost of education, raise private capital to support scholarships and loans, assure that federal aid is available to those most in need while slowing the escalating costs of the Department's student aid programs.

Sincerely,

WILLIAM J. BENNETT.

APPENDIX B

SUMMARY TABLE 2

[Distribution of Tuition and Fees for Graduate and Professional Schools With Tuition Over $5,000: 1983–84 [1]]

Tuition brackets	Number of schools	Percentage of schools
$5,000 to $7,999	261	65.3
$8,000 to $10,999	87	21.8
$11,000 to $14,999	43	10.8
$15,000 and over	9	2.3
$5,000 to $7,499	234	58.5
$7,500 to $9,999	107	26.8
$10,000 to $12,499	32	8.0
$12,500 to $14,999	18	4.5
$15,000 and above	9	2.3

[1] Of those schools in the $10,000–$12,499 bracket, 15 are in Medicine, 7 in Osteopathic Medicine, 6 in Dentistry, 2 in Graduate Arts and Sciences, 1 in Optometry, and 1 in Podiatry. Of those schools above $12,500, 11 are in Medicine, 10 in Osteopathic Medicine, and 6 in Dentistry.

STATEMENT OF DR. JOHN I. SANDSON, M.D., DEAN, BOSTON UNIVERSITY SCHOOL OF MEDICINE

Dr. SANDSON. My name is John Sandson. I am dean of the Boston University School of Medicine. I'm very pleased to appear before you today to present the views of the Association of American Medical Colleges on reauthorization of the Higher Education Act.

This association represents the Nation's 127 accredited medical schools and the more than 67,000 medical students who attend these institutions.

The programs authorized by the Higher Education Act have played an indispensable role in aiding students from all corners of our society to attain the M.D. degree. In the 1983–84 school year, for example, Title IV programs supplied almost fifty percent of all aid awarded to medical students. The Title IV programs most relied upon by those students include: One, the Guaranteed Student Loan program (GSL), which provides aspiring M.D.'s with about 40 percent of their total assistance. In the 1983–84 school year 60 percent of all medical students received GSL loans. Two, National Direct Student loan, another important source of low interest loan capital for students in medical training; and three, the ALAS/PLUS loans, which are being utilized in increasingly greater numbers by medical students. In 1983–84 almost 10 percent of the entire pool received these loans with an average loan of about $2,800.

Unfortunately, the very intricate web of financing mechanisms and other forces that have made medical education accessible to almost all qualified students has become frayed. Developments that were barely foreseeable 5 years ago threaten to bias the demographic composition of the medical profession towards the well-to-do and to preoccupy recent graduates with the retirement of large debt.

There are three major factors of play here: Firstly, medical education has become extraordinarily expensive. For the current school year, total expenses at private medical schools average almost $22,000 per year. Since 1976 inflation-adjusted tuition has increased by 106 percent in private schools, and 52 percent in public schools.

Secondly, over just the last 4 years, medical student borrowing from two extremely high-cost sources have markedly increased from a relatively minor $4.2 million of the total to $96.7 million. This is an unprecedented and truly dramatic expansion of high-cost loans. These sources for the high-cost loans are the ALAS/PLUS loans and the Health Education Assistance Loans, better known as HEAL. The latter carry interest rates of the 91-day Treasury bill rate plus 3 percent, and also include substantial insurance premiums.

Thirdly, medical student indebtedness has risen by leaps and bounds. In 1984 the mean educational debt for the 88 percent of senior medical students who had debt was $26,000, up over 74 percent in just 4 years. Of these seniors, 34 percent owed over $30,000, and 8 percent more than $50,000.

For many reasons, the profession of medicine is becoming less attractive to college students. Over the last decade applicants to medical schools have dropped by a disturbing 15 percent, even though places in first year classes have increased slightly. Consequently, the association's reauthorization proposal is designed to make medical education less financially intimidating. First and foremost, the association urges that the maximum GSL for medical students be increased to $8,000 per year, and that the cumulative borrowing limit be set at $40,000.

The current maximum GSL of $5,000 is simply inadequate to meet contemporary medical student needs. The higher GSL will ameliorate the financing problems discussed above, and particularly, the average medical student HEAL of close to $9,000 would be significantly reduced.

This proposal would increase Government outlay by substituting low-cost for high-cost borrowing, but such an outcome would facilitate medical student repayment by reducing rather than continually increasing the total of repayments or their indebtedness.

Renewal of loan consolidation program is also one of the Association of American Medical Colleges' major goals for the Health Education Act renewal. Consolidation, coupled with extended repayment, makes it possible for many medical students to meet their very large loan obligations, particularly during the years of residency when compensation is relatively very low.

The AAMC endorses the American Council of Education's 2-pronged proposal concerning extended repayment and consolidation. Individuals carrying GSL debts of more than $25,000 would automatically be given 15 years to repay those loans; and for loan consolidation, length of payback would be coupled to the ex-student's Title IV debt.

The highest priorities in designing a loan consolidation program should be to allow graduated repayment and maximum repayment span.

Finally, the association strongly supports the creation of a new title IV graduate and professional student grant program as advocated in the American Council of Education proposal. The grants would range between $1,000 and $5,000 a year, and in hundreds of individual cases they could critically modulate borrowing and supply a reduced risk first- or second-year medical training that might persuade otherwise reluctant individuals, especially minorities, to apply to medical school.

The Association of American Medical Colleges believes that the implementation of this proposal would result in an atmosphere more hospitable to continued recruitment of medical students from all strata of society, a goal shared by students, institutions, and Government alike.

The costs are small compared to those of not sustaining these aims.

Thank you very much for giving me this opportunity to present to the subcommittee the views of the American Association of Medical Colleges.

Thank you very much.

[The prepared statement of Dr. John I. Sandson follows:]

Prepared Statement of Dr. John I. Sandson on behalf of the Association of American Medical Colleges[*]

This statement represents the views of the Association of American Medical Colleges (AAMC) on reauthorization of the Higher Education Act (HEA). The Association represents the nation's 127 accredited medical schools and the more than 67,000 medical students who attend those institutions.

The Association's reauthorization proposal is informed by two basic assumptions: that students bear primary responsibility for financing medical education, and that it is in society's interest to ensure equality-of-access to that education. The AAMC has maintained for years that because of the expected high incomes of physicians, all but the most disadvantaged medical students should ultimately bear primary responsibility for financing their educational costs—either through direct payment, loan repayment or service payback. Unfortunately, most medical students, unlike the majority of graduate students, have no opportunity to defray educational expenses through research and teaching assistantships, fellowships, work-study programs or part-time work. In the vast majority of cases, the high costs of medical school force students to rely on borrowing to finance their education, with loans coming from institutional, private, state and Federal sources. Historically, the Federal government has provided by far the largest share of this borrowed money.

The AAMC also maintains that society benefits from equality-of-access to medical education because: the most qualified individuals are thereby enabled to pursue careers in the highly sophisticated and technically demanding field of medicine, with spin-off benefits to the economy and our nation's stockpile of knowledge; a variegated student body promotes the delivery of adequate health care to all segments of the population (a goal that unfortunately has proven stubbornly resistant to various attempted remedies); and, it is an ethical imperative in our society to grant all of its members the opportunity to engage in the careers of their choice.

Fortunately, over the last two decades the AAMC's principles on student responsibility for financing medical education and on society's interest in promoting equal access to that education have generally prevailed, through the interplay of various parties concerned with the training of physicians. Equality-of-access has been promoted by: educational institutions, whose own loan and scholarship programs totalled over $52 million in 1983-84; states, which in addition to accounting for most of the doubling of medical school capacity over the last 2 decades, also subsidized tuitions enough to promote widespread participation in medical education; private sources, such as the American Medical Association and National Medical Fellowships, that have made key scholarship funds available; the U.S. Public Health Service and the Armed Services, who, in order to recruit physicians, have provided scholarships in exchange for specified periods of medical service; and the Department of Health and Human Services, which, in administering Title VII of the Public Health Service Act, has offered various scholarships and low-cost loans to medical students, including Health Professions Student Loans (HPSL), similar to National

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[*] Submitted to the House Subcommittee on Postsecondary Education for its hearing on Reauthorization of the Higher Education Act, September 12, 1985.

Direct Student Loans (NDSLs). A table listing all the sources of medical student financial assistance is appended to this statement.

The programs authorized by the HEA and administered by the Department of Education (ED) have also played an indispensable role in aiding students from all socioeconomic strata of society to attain the M.D. In 1983-1984, for example, Title IV HEA student financial assistance programs provided 48.3 percent of all aid tendered to medical students. The Title IV programs most relied upon by medical students include:

The Guaranteed Student Loan (GSL) program, through which aspiring M.D.s receive most of their Title IV assistance. Over the last decade, GSLs have annually supplied between 38 and 44 percent of the total financial assistance awarded to medical students. In the 1983-84 school year, 60 percent of all medical students received GSLs, with an average loan of $4,830.

National Direct Student Loans (NDSLs), another important source of low-interest loan capital for students in medical training. In 1983-84, 8,729 medical students received NDSLs, for an aggregate total of $10.2 million, with an average loan of $2,087.

ALAS/PLUS loans, which are being utilized in increasingly greater numbers by medical students. Again in 1983-84, 6,245 medical students—almost 10 percent of the entire pool—received these loans, with an average loan of $2,884 and aggregate borrowing of $18.0 million.

Unfortunately, the intricate web of financing mechanisms and other forces that have made medical education accessible to almost all qualified students has become frayed. Developments barely foreseeable five years ago threaten once again to bias the demographic composition of the medical profession towards the well-to-do, and to preoccupy recent graduates with the retirement of debt:

Medical education has become extraordinarily expensive. For the current school year, average tuition and fees at private schools is $13,803, with a total average cost-of-attendance of $21,925. The mean total cost of medical education at public schools for in-state residents is $11,352. Since 1976, inflation-adjusted tuition has increased by 106 percent in private schools and 52 percent in public schools.

Over just the last four years, medical student borrowing from two extremely high cost sources has burgeoned from a relatively minor $4.2 million to $96.7 million—an unprecedented and truly dramatic expansion. These sources are ALAS/PLUS loans, which accrue 12 percent interest, and Health Education Assistance Loans (HEALs), which carry interest rates of T-bills plus 3.5 percent and also include substantial insurance premiums. ALAS/PLUS and HEAL now comprise just about 20 percent of all medical student aid and are a cause of major concern in our community. Reliance on them is clearly due to an absence of alternatives.

As a result of the prevailing economic realities noted above, medical student indebtedness has risen by leaps and bounds. In 1984, the *mean* educational debt of those senior medical students with debt—88 percent—was $26,883, up over 74 percent in just four years. Of these seniors, 34.3 percent owed over $30,000, and 8.2 percent more than $50,000.

Over the last decade, applicants to medical school have dropped by a disturbing 15.6 percent, despite the fact that places in first-year classes have increased slightly. This may be related to the fact that over the last 10 years, physicians' salaries in real terms have dropped. Surely another factor is the ubiquitous reporting of an impending physician glut. Also at play are the rapid changes in health care delivery in this country. Nevertheless, from the perspective of a college undergraduate, the more immediate factors relating to financing that have been mentioned above may be even more compelling.

The Association's reauthorization proposal, if adopted, would make medical education less financially intimidating by: replacing high with low cost loans; permitting more favorable repayment schedules through loan consolidation and extended repayment; and finally, creating a new scholarship program for needy first and second year graduate and professional students.

GUARANTEED STUDENT LOAN PROGRAM

First and foremost, the Association urges that the maximum GSL for medical students be increased to $8,000/year, and that the cumulative borrowing limit be set at $40,000. However essential the current GSL program, its maximum limit of $5,000 is inadequate to meet contemporary medical student needs. A higher GSL maximum will ameliorate the financing problems discussed above; in particular, the average medical student HEAL of close to $9,000 should be reduced.

In order to restrain program costs and ensure that additional GSL capital is provided for only those graduate students pursuing high-cost courses of education, the new $8,000 maximum GSL could be limited to those courses of instruction with tuitions and fees above a certain level—the AAMC believes $5,000 is a fair figure—with each institution's baseline tuition set retrospectively, as of the 1985-86 school year, and adjusted annually for inflation.

In 1984, the AAMC joined with a number of other organizations representing graduate and professional institutions to petition then Secretary of Education Terrel Bell to use the Secretary's regulatory authority to increase the maximum GSL to $8,000 for graduate and professional programs with tuitions of $5,000 or more. The current Secretary, William J. Bennett, rejected this petition last March, citing increased costs to the Federal government as one reason; Secretary Bennett also mentioned the availability of other Federal loans as well as the potential inability of students to meet repayment obligations that would result from higher GSL balances. Obviously, this proposal would increase the government's cost, by substituting subsidized low for unsubsidized high cost borrowing; but such an outcome would facilitate medical student repayment by reducing, not increasing, indebtedness.

In this connection, it should be noted that graduate and professional students in general, and medical students in particular, have as a group been extremely responsible in retiring their student debts. The estimated GSL default rate for the former category of students is between 2-½ and 3 percent. Although GSL default rates are not available specifically for medical students, the latter's 60-day delinquency rate under the HPSL program, with a 9 percent interest rate, is less than 5 percent, and defaults for the onerous HEAL program currently stand at just 4.2 percent. Moreover, a substantial fraction of the defaulters are individuals who dropped out of educational programs for academic or personal reasons, a group understandingly unenthusiastic about repaying debt incurred for a no longer possible career. Whatever the causes, default rates for medical students on all types of loans are lower than those on most consumer loans and home mortgages. The message here is clear—as students advance through highly rigorous educational programs, their ability to generate income almost always compensates for the costs involved in obtaining it.

CONSOLIDATION AND EXTENDED REPAYMENT

Renewal of the loan consolidation program is one of the AAMC's major goals for HEA renewal. Consolidation coupled with extended repayment is the mechanism that frequently makes it possible for many medical students to meet their formidable loan obligations, particularly during the years of residency, when compensation is relatively low. For example, in 1984, 3rd year residents (the minimum requirement for specialty certification, attained by nearly all M.D.s) received housestaff stipends averaging $22,439; 6th year residents, almost always over thirty years of age, received an average salary of $25,974. These levels of remuneration often times make it very difficult for residents to repay the large debts they have accumulated. Consequently, extended and graduated repayment are well-nigh a necessity for our debt-saddled graduates. The Association is extremely concerned about the current absence of the consolidation option.

The AAMC endorses the American Council on Education's (ACE) two-pronged proposal concerning extended repayment and consolidation: individuals carrying GSL debts of more than $25,000 would automatically be given 15 years to repay those loans; and for loan consolidation, length of payback would be coupled to an ex-student's Title IV debt. This latter approach would limit consolidation expenditures. The Association also backs the ACE's proposal to set the interest rate on consolidated loans at the weighted interest rate of the loans in a student's portfolio. However, the highest priorities in designing a loan consolidation program should be to allow graduated repayment and the maximum repayment span.

GRADUATE AND PROFESSIONAL STUDENT GRANT PROGRAM

The Association strongly supports the new Title IV graduate and professional student grant program advocated in Part D of the ACE proposal. Under this proposal, universities would receive funds in amounts proportional to their students' relative need; they would then allot these funds to their various campuses for grants to needy first and second year graduate and professional students. The grants would range between $1,000 and $5,000/year. In hundreds of individual cases these funds could critically modulate borrowing and supply a "reduced risk" first or second year of medical training that might persuade otherwise reluctant individuals, particularly minorities, to give the curriculum a try. Graduate and professional education has been underemphasized in the HEA and successful implementation of this program might help inject greater vitality into this absolutely critical sector of higher education. From a more parochial perspective, the proposed grant program might begin to replace the National Health Service Corps scholarship program, that in 1979–80 provided $49.8 million to medical students but yielded only $9.1 million just four years later, and is still shrinking.

The AAMC believes that implementation of its proposal will result in an atmosphere more hospitable to the continued recruitment of medical students from all corners of society, a goal shared by students, institutions, and the Government alike. The costs are small compared to those of not sustaining these aims. The Association greatly appreciates the opportunity to present its views to the Subcommittee.

TABLE 1.—SOURCES OF MEDICAL STUDENT FINANCIAL ASSISTANCE

Sources	1982–83			1983–84		
	Total amount (millions)	Number	Average amount	Total amount (millions)	Number	Average amount
Scholarships:						
Administered by schools:						
Exceptional financial need	$2.4	172	$14,238	$2.5	173	$14,334
Medical Scientist Training Program	7.9	662	11,950	7.2	525	13,719
School funds	30.8	13,297	2,313	30.0	12,741	2,426
Other scholarships	9.1	6,283	1,460	10.7	6,463	1,654
Subtotal	50.2			50.4		
Not administered by schools:						
Armed Forces health professions	48.8	3,171	15,402	51.2	3,289	15,575
National Health Service Corps	23.5	1,556	15,086	9.1	661	13,691
National medical fellowships	0.7	730	935	1.2	811	1,528
Other (with service commitment)	9.7	1,824	5,329	9.5	1,823	5,206
Subtotal	82.7			71.0		
Total scholarships	132.9			121.4		
Loans:						
Administered by schools:						
Health professions student loans	22.9	9,551	2,403	22.0	8,925	2,458
Guaranteed student loans	4.7	984	4,786	7.2	1,471	4,840
National direct student loans	14.9	8,057	1,851	18.2	8,729	2,087
Loans from school funds	16.8	7,495	2,244	22.7	8,939	2,540
Subtotal	59.3			70.1		
Not administered by schools:						
Guaranteed student loans	178.5	37,624	4,745	188.6	39,052	4,829
Health education assistance loans	50.4	6,554	7,695	78.8	9,830	8,013
Parental loans for undergraduate students	11.3	3,930	2,864	18.0	6,245	2,884
Other loans	6.0	2,476	2,418	6.2	2,614	2,370
Subtotal	246.2			291.6		
Total loans	305.5			361.7		
College Work Study Program	1.4	1,092	1,284	2.7	1,768	1,521
Grand total	439.8			485.8		

Mr. FORD. Thank you. Dr. Sandson, I had my interest drawn sometime ago to a number of schools outside of the United States which you could attend with Federal student aid, and the off shore medical schools which Doonesbury is making so popular now. Quite a number of them. How does your association react to that when you tell me that you have a 15 percent drop in applicants? These things are flourishing out there. Most of the states are letting these people come back with the same privileges that the graduates of your schools have. As a matter of fact, do they belong to your association?

Dr. SANDSON. No, they don't.

Mr. FORD. For some reason, I haven't heard the medical profession say anything about this. If they were doing that with lawyers, we'd be raising all kinds of Cain in our organization.

Dr. SANDSON. The association has very great concerns about the quality of the education the students get in those schools, and right now in many of the states very significant changes are occurring in the criteria for licensure. Many of the students who attend these schools are having increasing difficulty getting licensed.

New York State, I think, Department of Education visited a number of these schools. I'm not certain I can give you the specific four, but concluded that four of the schools in the Caribbean should not be approved, in the sense that their students wouldn't be eligible for training in New York State.

Mr. FORD. Has your organization or anybody in the organization discussed the propriety in any way at all of extending our scarce resources on people who are attending colleges and universities outside of the country?

Dr. SANDSON. I think there's great concern about th use of these scarce loan monies for students——

Mr. FORD. It's more than loans. Oh, is it only loans they can get?

Dr. SANDSON [continuing]. These loans to students in these schools. Personally, I think it should become clear to prospective medical students what the ground rules are going to be and whether they are going to be able to get loans in these schools or not, and whether they're going to be able to become licensed in the various States in the United States or not.

I think it's very important that those rules get definitively drawn up, and then those students who aspire for a medical education who don't get in a school in this country can then face possible application to these schools knowing what the future reality is. I hope that that happens soon, so that as students have a decision to make in regard to medical education they can make them knowing what their loan resources will be and what their licensure opportunities will be.

If it is decided that there won't be loan opportunity, and licensure opportunities won't be available, I think that should be known; and I'm sure that would then influence the number of students who seek their education in those schools.

Mr. FORD. You see, I had not thought very much about them as a phenomenon; but even before Mr. Doonesbury's attention, we had Granada. The director of the medical school was first very profusive in saying that his students were safe, that the commercial airlines are flying, they could have left anytime they wanted to. He got back here, and he met with somebody over at the State Department, came out and said to the press, it's a good thing we invaded that damn place, because they were about to kill us all.

I suddenly said, what would motivate this sudden change. Then it occurred to me that there are a number of ways you could make life very inconvenient for a school person who didn't cooperate. I'm not suggesting that he hadn't thought it over and got better information at the State Department and then made a more thoughtful judgment when he changed his position; but it was so abrupt that I paid attention to him.

Then I started asking what kind of a school it was and what kind of people are there, and found the most frequent defense of them is that they will admit students at an older age than most of the medical schools will.

I had a very good friend who ended up going to medical school at Krakow where you can also go with student loans, by the way. Where are the ones in Poland, Tom? Warsaw and Krakow both have eligibility for American students with student loans. But he went there because, having passed 35, none of the medical schools, even with the help of the national people here in the American Medical Association, thought he was young enough to undertake a medical education.

Unfortunately, they turned an otherwise very liberal young man into something less than that by telling him at medical schools that, if he was either black or female, they could waive his age requirement. Very unfortunate sort of thing to expose a young person to, because I think it had some impact on attitudes that are going to affect him in his professional career. He's now a doctor in Detroit, having returned and finished his medical education here someplace. I guess, when he got his internship, it was here.

I had been under the impression that the medical schools were still faced with an excess of qualified applicants.

Dr. **Sandson**. The specific data on that is, if the applicants have—I stated about 15 percent since over the last 7 or 8 years. Overall, there are just about two applicants for every available place. It is the feeling of the Association that the number of places now available to entering medical students, which is about 17,000, is adequate to train the physician need of the United states.

Mr. **Ford**. If we could get you distributed properly.

Dr. **Sandson**. If the doctors who were then trained went to places where they were most needed and practiced in the specialties that they were most needed. Yes.

Mr. **Ford**. See, the advantage in our profession is that it's been well recognized that no small town could support a single lawyer, but it supports two very well. Yours doesn't seem to work that way.

I want to ask you, John Cramer, if you would run back again this graduated interest scheme that you outlined.

Mr. **Cramer**. Well, it really is nothing new in the sense that it was in the 1981 law.

Mr. **Ford**. Well, we're considering a number of these alternatives. I want to hear the specifics of yours again.

Mr. **Cramer**. The specifics of ours is that graduation, as opposed to being permissive to the lender, would be mandatory. He would have to consolidate if the borrower chose to do so; that the consolidation would be, we would hope, for a period of 20 years, and I gather the medical schools want as long a period as possible, but that in the extended period—in other words, when the government would otherwise be subject to the special allowances beyond the normal 10 years—that there would be no special allowances, that indeed the rate for that consolidation loan would be the rate set between the lender and borrower, a market rate.

Today, that's, I think, something like 10.8 percent. Tomorrow it could be—That would be annually variable. We also suggest, however——

Mr. **Ford**. Four years ago it was 21½.

Mr. **Cramer**. I know, but we are risk adverse to this extent. We think that it should be treated like a variable rate mortgage. California has legislation along these lines—with an absolute maximum which you could work off a rolling average. So that if it's a 1980 or 1981 you suddenly are not paying 18 percent, because T-bills are at 14 and you add 3½.

So if there's got to be some sort of cap, that cap would—and that obviously would only operate in years of crisis for a brief period of time.

It's something like a variable rate mortgage with a cap which is for risk adverse, and the cap obviously is not going to be 11 or 12 percent. It would be some significant sum higher than that but, hopefully, below 18 or 17.

Mr. **Ford**. Well, we're trying to figure out how to make these improvements in the loan program and improvements in the sense of providing more resources, and find the money for it, because the ultimate test of the wisdom of this committee is whether we can get the fellow down there at 1600 Pennsylvania to sign it. The indications are that anything that looks like significant increases in commitment are not going to be dealt with very kindly. But there is a tremendous pressure that has been demonstrated to us throughout the country in these long hearings for increasing the loan limits.

We've been talking about the possibility of increasing the loan limits for the first 2 years of undergraduate school slightly. I suggested that we leave them where they are. My Republican counterpart suggests we raise them. So I can't be more tightfisted than he can.

Then raise the second year's more significantly and finally to raise the loan limits on graduate students to about $8,000 with a trigger at $5,000.

Mr. **Cramer**. Mr. Chairman, if it would help you, appendix B of our testimony gives the only data that I know existing on as of 2 years ago now, because nobody has collected it since I did it 2 years ago, of those schools in all graduate and professional education with Stanford broken down, for instance, according to different schools, that have tuitions and fees in excess of $8,000. As of that time, it was 139 schools nationwide for which we had information, and we realty had pretty complete information. This was all graduate schools.

Mr. **Ford**. Let me tell you that your list is way off. It's much, much too conservative.

Mr. **Cramer**. Well, this is 2 years ago.

Mr. **Ford**. But we have been experiencing over the last 4 years the most phenomenal growth in costs that we've seen in any one period of time in college costs.

Mr. **Cramer.** I would assume that the 261 schools that were in the $5,000 to $8,000 bracket could very well have wholesalely escalated their costs over that 2-year period.

Mr. **Ford.** You have a hard time finding any private school below $8,000. I don't know where you would find one. A few years ago their average was a little over $5,000. The public schools are now at the level that the private schools were at probably 6 or 7 years ago.

In my own State, our only public institution that gets into that bracket is the University of Michigan where it's $7,200 for an entering freshman this year. That's shocking to our people out there, because we used to boast of having one of the most economically accessible public college systems in the country. The conditions of the State governments in the Midwest, generally, and in the Northeast have hurt the public institutions pretty badly. But realistically, the loan limits have not been adjusted since we set them up in the early seventies, and if they made sense then, they certainly don't make sense for the same reasons today.

The reaction we will get to raising the loan limits will come in two ways. We will first have the concern of those people who say that we should be putting new resources into grants because of the overemphasis now in the total mix of expenditures for education. There are a lot of people I'm with and who are concerned about the fact that we're creating an indebted generation of people here who are not going to be buying cars as early as they would have when they got out of college, and they're not going to be buying homes as early as they would have. They're not going to be doing a lot of other things, and we don't know what impact that has when you realize that we're dealing with 6 million people at a time.

We're now having these student groups come in here and talk to us about average student indebtedness. We had the dean of the dental school from the University of Detroit testifying on behalf of the dental school, who said that the average student at that dental school was coming out with a 40,000-some debt this year.

The dean of Georgetown told me that the average law student was coming out $40,000 in hock. You know, even in those professions that's a heavy impact. That's double the size of the first mortgage that I took out to buy a home for my family after I was practicing law.

I remember regarding that as an overburdening kind of a responsibility. Now God forbid, you should meet, fall in love with, and marry another student who is getting a student loan.

As John knows, we lawyers have always been told that American public policy is to encourage the status of merit. It's hard to tell that these days, but nevertheless—there are all kinds of mistakes we make in the law, because we just pass them off and say, well, it doesn't make much sense, but it's always been public policy to encourage the status of merit, and it looks to me like we're inadvertently getting into a number of conditions that are going to affect that whole group of people.

So there is a concern that we go in the direction of liberalizing or facilitating the borrowing of money rather than trying to find more resources for grants. Now the dilemma that we face is that the probability of being able to find any substantial increased resources for grants is very, very low.

However, we might be able to get more resources through loans and get away with it, mainly because it's easier to get fiscal conservatives to accept the idea that it's all right to let people borrow money than it is to give people money.

The sad picture that we're seeing here is that the low-income student who was never intended to be a substantial participant in the Guaranteed Student Loan Program is more and more becoming a customer in that program. If you go back and read the President's message to us when we introduced the Higher Education Act in 1965, President Johnson's message has only one very short paragraph talking about the Guaranteed Student Loan Program. He said, that would be a program for middle class students to get a little extra money when the family had a cash-flow problem.

I'm paraphrasing it, but that's basically the vision that he and we adopted. He said, second, many families cannot cover all of the college expenses on an out-of-pocket basis. We can assure greater availability of private credit on reasonable terms and conditions. This can best be done by paying part of interest costs of guaranteed loans made by private lenders, a more effective, fair, and far less costly way of providing assistance than the various tax credit devices which have been proposed.

That was all he said about it. Indeed, in the early years it was used by people who had some family support for that extra they needed. But now we see the same people that are in the Pell grant qualifying area borrowing at the maximum on the loan. In spite of what we keep telling young people about your increased earning capacity probability, if you attend college, if you look at those people we find in default you find that there are some predictors that they're likely to be found there.

One of them was family income at the time they went to college. If they came from a low-income family, unfortunately, large numbers of them do not progress as far as the rest of their classmates when they get out of college in terms of well paid jobs.

There are a very large number of the defaulters whose profile from the time that they were in college would indicate that they had very few family resources to help them. The very people that were having the trouble paying it back, we're now getting deeper and deeper in. So when we talk about graduate schools and increasing the loan limits, it's easy to understand that, by the time somebody has moved into graduate school, their proven ability to finish a course of study and to do the extra work that it takes to achieve something is probably going to indicate that they'll be able to undertake a debt and repay it; but that isn't a presumption you can make about the kids in our junior colleges and undergraduate schools who are going to come out with—if they finish—a barebones baccalaureate degree that doesn't really impress very many people. Doesn't have very much cash value.

I don't know how we could make the discrimination without it becoming discrimination, which leads me to one more question.

Dr. McCune, you put great emphasis on the concern for the fact that the numbers and proportions of minority students in graduate education are indeed not increasing but decreasing. That's a matter of great concern, and the number of institutions that I've talked to have tried all kinds of schemes and plans to offset that. More recently, in talking to the people from the historically black college group, the 104 colleges that are on that list, they will almost invariably start every discussion with me by pointing out that most of the graduate degrees that are received by blacks in the United States are received from that very small group of colleges.

When I try to say to them, but blacks who go to school anyplace need the same kind of help, they say, no, because the other schools do not take them through and get them to finish.

Do you have any idea whether or not that is a valid assumption on their part? And the figures, even your own figures, seem to bear that out.

What is the characteristic of those schools—or the characteristics of those schools that gives them a higher success rate with completion than we have in the rest of the so-called system?

Mr. McCune. I'm not sure that I'm the best person to answer that, Mr. Ford. I expect one of the representatives of the black colleges could do a better job. My assumption is that——

Mr. Ford. Well, I have it from the standpoint of their point of view. I would like to get it from somebody as intimately associated as you are with the largest public university in the country.

Mr. McCune. Well, we have assumed that one reason—I think the facts are correct, that black students do tend to do better in the sense of finishing in higher percentages and completing, particularly, graduate degrees in all black institutions. I think our general assumption is that the reason for that is that there is a kind of nurturing environment for those students in those institutions which they may not find in institutions that are largely white or largely nonminority.

Most of us have tried to deal with that situation by providing some kind of a substitute, support programs aimed at minority students. We have very elaborate ones on my campus, and most of the campuses in our system, that are designed to assist the student in mastering the intricacies of admission to the university, of mastering all of the problems associated with getting through majors and meeting requirements and things like that. We provide special counseling, tutoring assistance, primarily for minority students, though for any student that needs it.

We think that some of these things help, but I'm not sure, frankly, that we have found the final answer on this. I see as the major problem in our State, starting back even before the student comes to college, instilling attitudes about education, about completing education that do not now exist.

This is a particular problem for us in the Hispanic community, primarily the Mexican-American community, which is, as you probably know, the most rapidly growing group in our population, and yet it is the group in which the high school dropout rate is the highest.

We're now involved in outreach efforts, trying to assist students in completing high school. Obviously, if they don't complete high school, they're not going to get to college. And if they don't complete college, they're not going to get to graduate school.

We haven't found a better way of going at this than to try to help the student meet the requirements of what is essentially a foreign environment for many of those students, and provide the kind of support necessary to enable them to get through. We think it has been successful, but unfortunately, it hits a relatively small group of students.

These days, we've noted a decline—not just in California but I think this is true nationally—of students from the underrepresented minority groups. The usual explanation in our part of the country is that the student simply doesn't see the importance of education; doesn't see the value of staying in school for all those years. He wants to get the car and the television set that you mentioned earlier now, by dropping out of school and getting a job. With somewhat increased employment opportunities, he's able to do that more rapidly than he would be increasing school, by finishing school.

So we've again tried to work on programs to stress the importance of completing one's education, the advantages that come to that. But it's not an easy problem to solve.

I don't think I answered your question.

Mr. Ford. Well, it's a very difficult thing for us to have to wrestle with, because there clearly are some distinctions, and there is an irony in that distinction. At most of those institutions, some people refer to them as historically segregated institutions; because most of them that were established, if not all, by public law were established under the language that was in the second Morrill Act that said establishing separate but equal land grant colleges would be all right.

We actually had a Federal policy that fostered it. Of course, right down the street here we have Howard University created by the Federal Government. In the States it was an alternative to providing access to the public college system, to building a college system that was desegregated.

In 1954, the Supreme Court said, we've been wrong in interpreting the Constitution prior to that time. Nobody's ever questioned that decision successfully, and yet here we are in 1985 forced to wrestle with the proposition—at least it's on the table—that this segregated education is working better than integrated education.

Mr. McCune. I don't really think that it is because it is segregated.

Mr. Ford. I don't look forward to the next time I have to face one of these State chancellors that I've wrestled with in the last 10 years to desegregate their State system.

Mr. McCune. Well, let me make one other observation, Mr. Ford. My campus is in Alameda County in California, and Alameda County houses the cities of Oakland and Berkley, among others. They have a very high percentage of persons from low-income minority backgrounds. My particular campus is almost 40 percent of the students now who are something other than white.

The largest single percentage within that group is now Asians. We draw students, black students, in particular, from two different segments of the black community. There's a large population in Oakland of blacks who are professional people, doctors, lawyers, engineers, businessmen. Students who come from that background to our campus, by and large, have no more difficulty than any other student.

Their families give them the support, the encouragement, to complete education. They have the parental backing and support that they need to find the finances and do the work, and they do real well.

Students, on the other hand, who come from very poor backgrounds, disadvantaged backgrounds, where there is no tradition of college going, where there is no particular family support for educational activities, do not do as well; and they need a great deal of help. Those are the ones we've tried to give help.

My suspicion is that students who go to the all black institutions come primarily from the former group and not from the latter group. That is, they tend to come from families where there is some tradition or some interest in education, and some parental support, and that thus they might be the kind of student who would do just as well in a white institution as they do in a black institution.

I have no proof of that, but i have that—I have a feeling that may be one of the explanations for this. The students we are concerned about are the ones who come from backgrounds where the parents do not only know about college, they don't think it's important. They think the kid ought to go out and get a job and help support the family, and don't believe that he should wastetime going to school. Those are the ones we are trying to reach, and I don't think we're going to be able to reach them without assistance, because they're expensive people to reach. They require a lot of help, a lot of support, a lot of services that other students do not require.

It's very costly.

Mr. **Ford**. Thank you very much. Mr. McKernan?

Mr. **McKernan**. Thank you, Mr. Chairman.

Mr. Cramer—that's correct, isn't it?

Mr. **Cramer**. Yes.

Mr. **McKernan**. I want to follow up on some of your suggestions, because I, too, feel that the current GSL Program and all the loan programs, frankly, aren't necessarily satisfying the needs that we see in the late 1980's and into the 1990's.

How would you feel about, in addition to your suggestion, to also phasing out the Government subsidy during the first 10 years? In other words, trying to give some incentive to students to pay that off, at least within a certain level. In other words, not just saying that everybody would have the right to consolidate and have 20 years to pay it off, but somehow graduate that system depending on what your debt is.

Mr. **Cramer**. There is a problem here which is, over the years the chairman has, I think, told the groups that it would be nice if you all got your act together and agreed on everything; and I think this year, more than ever, all of us are in reasonable agreement on these matters, although there's an obvious split in terms of ability to afford between graduate and professional education.

I do not want to go very much beyond the group's general agreement, but I do think that a 10-percent-interest-rate, for example, during those 10 years would not be unreasonable. If you look at it—And I do these—do lots of mathematics. Let's assume somebody borrowed $30,000 that you pay back over a 10-year period, not now over graduate or over 20 years. That's an average—you're at the average over the 10 years at about $15,000. An extra 2 percent there is about $300 a year or an extra $3,000 on the cost of borrowing. And that does not seem to me to be excessive. To the individual, clearly when you multiply that by millions, it does become large in terms of the U.S. budget. And that is why that kind of a tradeoff makes some sense. But remember, the big debts are the ones that are really going to need to be repaid in the 10- to 20-year period, and there the interest rate cap could come off subject to this ultimate cap to avoid an 18 or 20 percent suddenly being thrust upon you.

Mr. McKernan. Have you taken your decisions far enough to have a position on whether or not there ought to be a limit on the number of years, depending on the size of the debt; or have you gone that far with it?

Mr. Cramer. Well, there are all sorts of complicated schemes. One that the prior chairman of the committee had last year, I believe, and then the Senate, I don't think, ever got to report out theirs, but theirs was going to be even more complex.

We would rather have something simple. There is some administrative problems here. Somebody mentioned earlier, I think the medical school person, the question of knowing in advance. The more complex rules or the more they change, the more these students come in having absolutely no sense what it's going to look like getting out of there. Therefore, we would prefer really the flat option to go to 20 years, remembering that the difference between 15 and 20 would be of no consequence to the Federal Government, if the market rate were the loan rate and there was no subsidy in the period between 10 and 20.

There would be no Federal interest as to whether the repayment period was 12, 15, 18, or 20 years. The longest period is the one that would most hold back defaults and most allow the graduated repayment to slope up effectively.

Mr. Ford. Would you anticipate that the loan would, however, be guaranteed during all of its life?

Mr. Cramer? Yes. Well, the guarantee is, I think, a critical factor. Now the guarantee cost in part depends on default rates. Of course, there is a charge of a guarantee fee that could be paid, and this committee could adjust that in some way so as to, again, hold down the only other potential Federal cost in the 10- to 20-year payback period.

Mr. McKernan. Have you given any thought to what the banks' reaction would be to this, whether or not that would have any impact on their willingness to participate in the program to have to go the extra 10 years even at what we view as the market rate, which they may or may not view as the market rate?

Mr. Cramer. Before we gave this testimony, we've had considerable discussion with the banking groups who have appeared before here, and I think some of them are very much in support of precisely this, letting the rate be negotiated in the 10- to 20-year period; and have, I believe, if not submitted testimony, I have seen various documents from the banking groups suggesting that they would be supportive of this kind of a proposal.

See, they're not troubled, I think, by repayment, certainly from professionals in the 10- to 20-year period after your tenure is out of medical school, dental school, law school, veterinary school, osteopathic school, whatever.

Dr. **Sandson**. I think it is important for the committee to hear a little about the medical school experience with near commercial rate loans, which the HEAL program is. The GSL loans, a $10,000 loan through 10-year repayment, 8 or 9 percent, the student will repay about a total of $15,000. If they are in a HEAL program under present rules and regulations and have deferred through residency and through medical school and then begin to pay and just say their variable rate should average 15 percent, under that program they will repay for that $10,000, $50,000. And if they repay over 25 years, they'll repay $100,000.

So while the percentages may sound small, it depends how the interest rates are calculated, and if one gets into compounding and semiannual compounding and interest rates started going up, the repayments can get very large.

Essentially, what our testimony is saying is that we need to keep our students out of high cost loan programs to the fullest extent possible and to try to get them into more low cost programs. It may be different for other professional schools, but we've had a lot of experience now with the marketplace loans, and there are complications to those.

Mr. **McKernan**. Are the complications that, as the interest rate fluctuates, the monthly payment gets to be too much? Or is it that just the total amount of interest that's being paid over the life of the loan, you think, is excessive?

Dr. **Sandson**. To answer your question, I need to take into account the magnitude of the debt. It is probably going to happen that a medical student from a private medical school will come out with a debt between $70,000 and $100,000. If a student has such a debt and they consolidate it and extend the repayment, which they probably will have to, over 25 five years and if one ends up with an average interest rate of 15 percent, one will be repaying over a 25-year period $1 million. That comes out to $40,000 a year. Sure, that's going to be harder to repay during the early years than the later years, but it probably will be hard to repay all the way through.

The magnitude of the numbers are starting to get very compelling, and the need in the medical schools for preservation of as much low-cost fund as possible is really very real.

Mr. **McKernan**. Anybody else want to comment on that?

Mr. **Cramer**. By the way, we don't disagree. We say low cost while in school and then the first 10 years. It's in the last period it doesn't matter. Not to disagree again, but to add the factor that, when you pay a million dollars back over 30 years, inflation has meant that every dollar you pay back may be worth 20 cents of what it would have been had you paid it in 1985.

Mr. **McKernan**. I understand that, and I think that we do have to be concerned about the expensive graduate students. That isn't going to receive a lot of sympathy from many of my constituents, compared to some other people who are having trouble just getting a postsecondary education, not to mention graduate school.

In that vein, Ken Hayes, you talked a little bit about the people who really aren't going to be making the kind of money that physicians and lawyers are making. How do you feel about restructuring a program to focus more grants toward those people who are involved in teaching or other comparatively low-income professions, and those types of graduate courses, and leave the loans for the lawyers and doctors?

Mr. **Hayes**. Well, I think the major point would be that those groups shouldn't be overlooked, that basically we should be looking at graduate training. Now medical school training and legal training is a very specialized and kind of an interesting area. But the problem of training teachers, graduate training of teachers and even political scientists is a very important function of society. The people going into these areas need the loans, too; and oftentimes you could even talk about minorities and women. They need loans based upon a need.

Mr. **McKernan**. I think that's true, but one of the issues that has been brought up before this committee, but I hadn't really focused on as much until I heard it a number of times during hearings in my district, is the two students with $30,000 each in loans who have just gotten graduate degrees in education who were going to go and start teaching and have $60,000 in loans to pay back. All of a sudden, it's a very difficult situation. I think that we need to address that somehow.

I don't know whether it's more Government involvement in subsidizing those loan rates, or whether it's targeting more of the grants to people in those particular fields rather than the loans to at least use up the grant money that we have on those who are going to have less ability to pay. I don't know what the answer is.

Mr. **Hayes**. Well, let me respond to your point. The earning capacity, let's say, of a teacher starting out is quite different, at least in a career line, than a lawyer or a doctor. So, if a teacher is going to incur the debt, a potential teacher, of $30,000 and they start out as they do in some of our states with a salary of around $11,000 a year, they've got a problem.

So I think in those kinds of professions like teaching and social sciences and so on, these people are going to have real problems with defaulting and handling loans over their career line. Whereas in the medical profession and legal profession, their chances of a high income are just much greater, but they're going to have problems, too.

A million dollars to pay back is a big obligation. A lot of patients are going to help that doctor.

Reverend **Ryan**. I certainly would like to confirm that. One of the purposes for me appearing here is to say that. I deal with people personally who are going on in the social sciences or in teaching, and they're finding it very difficult. As I said before, I married a couple in June, and both of them are teachers. Both of them are teachers in western New York. They have a reverse dowry. She has about $19,000 in loans, and he has about $20,000 in loans. There's no way they're going to buy a house. There's no way they're going to settle down. This is a real problem for a tremendous number of people.

We were speaking also that we want minorities to come into graduate education in the master's level and to go on to the doctoral. This is a real problem. The problem is the indebtedness is tremendous. This double indebtedness is going to grow larger and larger, and I speak very feelingly for what you probably have seen in your district, but I know this is present in western New York, by personal testimony.

Mr. **McKernan**. That gets back to Mr. Cramer's suggestion, and I think that is a classic example of where extended loan payments and graduated payments would make a big difference to people who find themselves in that situation. At least, they have a chance to get themselves established at the lower repayment level until they have their feet under them and don't have to make the choice between having a car to drive to work or repaying their loans.

Mr. **Ford**. We have one other alternative pending before the committee. Mr. Biaggi's proposal, among other things, would have five year deferral for teachers on repayment. The first 5 years out of school if they were teaching, as I recall. For each year up to 5 years that they taught, their loan would not go into repayment, so that they would get a 5-year breathing period. We're trying to have that costed out by the Congressional Budget Office, but it's one way of trying to get——

Mr. **Cramer**. Is this deferred unaccrued or just deferred?

Mr. **Ford**. Just deferred, at Government expense. That's why it's an expensive way to do it.

Mr. Hayes.

Mr. **Hayes**. Mr. Chairman, thank you. I had several questions for the most part, to the plight of minorities and disadvantaged, which most of you addressed yourself to. But as you can already hear, the bell has already rung. One of the disadvantages, one of the other disadvantages of sort of being low on the seniority totem pole here is you don't miss too many votes purposely, even though how insignificant they might be.

I was just wondering, Mr. Chairman, if it's possible that I might direct my questions in writing to each of the panelists and hope that you will respond to them, because I know that you've been here quite a long time, too, and there's just so much the human anatomy which you sit on can endure. I am concerned about this. I'm concerned as to where we're going. Is there going to be an opportunity for minorities? When you talk about minorities, I think you have to take a special look at what is going to happen to the black students who, for the most part, are on the low end of the totem pole in all instances.

For example, I notice California State University has an enrollment of 300,000 students. What percentage of that is black? These are the kind of questions that bother me, and I will, Mr. Chairman, with your permission——

Mr. **Ford**. The questions and responses will be put in the record contemporaneously with the other testimony today.

Thank you very much, gentlemen. I'm sorry we've had to delay so long. My apologies to the panel yet waiting. I will run over and make this vote and come back as quickly as possible to go on.

[Recess.]

Mr. **Ford.** The next panel is Dr. Steven Sample, president of the State University of New York; Mr. John Cerveny, president of Student Government, Rensselear Poly-Technical Institute; Dr. Edward Clynch, associate professor and head of the Department of Political Science at Mississippi State University; Dr. William Boyd, president of Field Museum of Natural History, Chicago; Professor Paul H.L. Walter, Department of Chemistry and Physics at Skidmore College.

Without objection, the prepared statements of each of the witnesses will be inserted in full in the record immediately preceding the point at which they begin their comments. We'll start first with Dr. Sample.

STATEMENT OF DR. STEVEN SAMPLE, PRESIDENT, STATE UNIVERSITY OF NEW YORK.

Mr. **Sample.** Mr. Chairman and members of the subcommittee, I am Steven Sample, president of the State University of New York at Buffalo, and I'm very pleased to appear this morning and to testify to you about graduate education on behalf of several organizations.

Specifically, Mr. Chairman, I am here on behalf of the Association of American Universities known as the AAU; the Council of Graduate Schools, known as CGS; the National Association of State Universities and Land Grant Colleges, known affectionately as NASULGC; and the American Council on Education, known as ACE.

These institutions, Mr. Chairman, include virtually all institutions in the United States, public and private that award graduate degrees. That is, these associations include those institutions.

First, on behalf of those organizations, I would like to thank the subcommittee for the leadership and support that it has consistently demonstrated on behalf of graduation education in years past. In the more extensive written testimony which I have submitted, I emphasize the importance of graduate education to our Nation, and concomitantly the importance of Federal support to maintain student access to graduate education in the United States.

There seems to be a great deal of agreement among all parties as to the importance of graduate education, and I think that importance is manifested in several specific areas. Let me name a few: National defense, agriculture, space exploration, medicine, manufacturing competitiveness, new product development, and information technologies.

Mr. Chairman, I think the simple fact is that America's competitive edge depends upon her superior knowledge base, and that superior knowledge base depends in turn on the quality and efficacy of our graduate schools.

In my judgment, the importance of graduate education will increase in the years ahead because of an increasingly complex world, increasingly complex politically, economically, ethnically, demographically. Now despite the substantial Federal investment in graduate education and academic research, very serious problems are emerging in the area of student access to graduate education.

These problems are reflected, or we can see these problems being reflected in certain data. First of all, the number of applications to graduate schools is declining in the United States. Another dimension of concern is the fact that the number of our very best students, our very best undergraduates—that number of applications from those students is declining. Finally, the number of applications from U.S. citizens is declining.

I think you're aware, but let me just reiterate the fact that in 1984 a majority, most, of the doctoral degrees awarded in engineering at U.S. institutions were awarded to foreign nationals, not to citizens of the United States.

At the root of these problems, in our judgment, are increased costs and decreased support and, concurrently, a much heavier reliance on loans on the part of graduate and professional students.

Just the other day, I was talking with a student at SUNY, Buffalo, who is studying for a master's degree in chemical engineering. This brilliant young man—and I think I use that word accurately—has maintained an absolutely perfect 4.0 grade point average in graduate school at SUNY, Buffalo. He has already borrowed more than $11,000 to complete his undergraduate studies, and during his first 2 years in graduate school he borrowed $10,000 more. Now this young man plans to complete a Ph.D in chemical engineering at SUNY, Buffalo; and I couldn't predict at this point what sort of debt burden he will carry finally when he enters the job market after completing his doctorate. And the example I have given you is not an isolated example.

In 1985–86, the current academic year, almost 3,000 of SUNY, Buffalo's graduate students are taking out GSL's, Guaranteed Student Loans; and the average rate of indebtedness is $4,000 per student per year.

The Higher Education Act that Congress is now considering provides a balanced set of programs, in our judgment, that will help improve student access to graduate programs. Five of these programs, as you know, already exist; and in my written testimony, I have recommended some modest changes to those five programs, but our primary interest is that those five programs be continued.

They are: First, the College Work-Study Program, which is having increasing significance at the graduate level; the Guaranteed Student Loan Program; the National Direct Student Loan Program; the National Graduate Fellows Program; and finally, the Graduate and Professional Opportunities Program, known as GPOP, which is a very important program from our perspective in attracting minorities and maintaining minority enrollments in graduate schools.

Essentially, the modifications I have suggested in my written testimony are to make a larger number of dollars available to a larger number of students. Now I encourage this modification even in the loan programs, and that might raise, in your mind, a sense of contradiction, given my concern and the concerns expressed by others about the loan programs.

However, I think the reality is that access to graduate education in America will have to be maintained through a balanced approach between grants and loans, and I think the loan program does need to be expanded, both in its availability to a larger number of students and in the maximum amount that certain students under certain circumstances can borrow.

I also believe that Congress could do a lot to help alleviate the burden of debt for many of our students by restoring the loan consolidation provisions and by providing extended and graduate payment options, which were discussed by earlier witnesses in the earlier panel.

Now in addition to asking you to continue the five programs that are already in the Higher Education Act, 119 to which I alluded earlier, we would ask that three new provisions be included in the bill. First is the program that you, Mr. Chairman, have recommended, or at least you recommended through a special bill last year which would provide need based grants in block form to graduate institutions. We think that program would do some very good things in providing general access to graduate education throughout the country.

The second is the program that was proposed by Mr. Coleman that would provide competitive awards to exceptionally strong academic departments at particular graduate institutions in the country. We think that program, again because it's administered at the local level, could go a long way to help relieving some of the indebtedness of graduate students that we produce in the future.

The third new program is—we call it the Early Intervention Program. I think that's the title that's used commonly. It would address a critical and, in our judgment, a widely recognized need. That is the need to increase the number of minority graduate students, not just in the historically black institutions but in all of the front line graduate institutions in the United States.

In conjunction with the Graduate and Professional Opportunities Program, this particular provision, which would permit early identification of undergraduate minority students who have great potential for graduate professional work—This program would help address the underrepresentation of minorities in many professional and graduate level fields.

Another important step which Congress could take toward improving student access to graduate education would be to define graduate students as being categorically independent of their parents upon enrollment in a graduate program. Now we think this categorical definition should be limited by the provision that such students could no longer be claimed as dependents on their parents' tax return.

In our judgment, this particular change would help eliminate one of the principle barriers to graduate education amongst students from the middle class where there's this natural tension between the student and his parent as to who is responsible for paying for graduate education.

Mr. Chairman, through the grant programs, work study programs and loan programs that are contained in and proposed for the Higher Education Act, Congress can aid not just our students and our institutions, but our national interests as well. You, sir, and this subcommittee have been very responsive to the needs of graduate education in the past, and I trust you will be responsive again now that the need is so great.

Thank you.

[The prepared statement of Steven Sample follows:]

PREPARED STATEMENT OF STEVEN SAMPLE, PRESIDENT, STATE UNIVERSITY OF NEW YORK AT BUFFALO ON BEHALF OF AMERICAN COUNCIL ON EDUCATION; ASSOCIATION OF AMERICAN UNIVERSITIES; COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES AND THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES

Mr. Chairman and Members of the Subcommittee, I am Steven Sample, President of the State University of New York at Buffalo. I am pleased to appear before you today on behalf of the American Council on Education, the Association of American Universities, the Council of Graduate Schools in the United States, and the National Association of State Universities and Land-Grant Colleges, to testify on graduate education.

As the United States moved into a position of world leadership following World War II, graduate education sharply increased in importance to the nation. The launching of Sputnik in 1957 generated a substantial expansion of the federal investment in graduate education and academic research. The results of those investments are manifest in recent advances in defense systems, space exploration, medical procedures, and information technologies, among others. Our national security rests heavily on our technological superiority. The exploration of our solar system and the development of the shuttle system are crucial to our nation's capacity to understand and control the potential benefits of space. Biomedical breakthroughs such as the development of recombinant DNA techniques promise dramatic benefits in medicine and agriculture. The continued development of information processing systems is not only essential to our future economic competitiveness but underlies our military preparedness, our research capacity, and the effective operation of large-scale social programs. Scholars teaching in our graduate schools carry forward our intellectual and cultural heritage and educate succeeding generations who can apply accumulated knowledge to contemporary circumstances.

The importance of graduate education to the nation will only increase as we move into the twenty-first century. International tensions show little sign of abating. Our economic productivity will be pitted against increasingly creative and sophisticated international competitors. Profound changes are underway domestically, as our industrial effort shifts from heavy industry into new technological enterprises and our workforce becomes progressively more service-oriented. By the year 2000, approximately one in three Americans will be nonwhite; how effectively minorities are incorporated into the mainstream of American life will determine in considerable measure the productivity of our economy and the quality of life in our society.

Our capacity as a nation to respond effectively to internal changes and international challenges will depend in fundamental ways on graduate education. Graduate education produces the highly talented persons with the depth of knowledge, range of perceptions, and technical skills necessary to respond effectively to changing circumstances.

As a democratic society, we must build in the capacity for all our citizens to be able to make increasingly complex social and political judgments and to incorporate greater technological understanding into their deliberations. This is a challenge that must be met at every level of the educational system. Graduate education again plays a pivotal role, for the quality of education at the highest levels of our system will strongly influence the quality at all levels.

Despite the central importance of graduate education to the nation, serious problems are developing within the enterprise. Applications to graduate arts and sciences institutions declined 23 percent between 1974 and 1981. The percentage of students who are enrolled each year is a progressively larger portion of those who apply. The brightest college graduates are not pursuing graduate education in the numbers that they were 15 years ago. In critical areas of national need, we are not producing sufficient numbers of doctoral recipients; by 1984, over half of all engineering doctoral degree recipients were foreign nationals.

In the humanistic disciplines, the academic job market—almost the sole market for humanities Ph.D.s—has greatly diminished over the last decade. There is growing evidence that the most talented students are beginning to choose other career options, generating serious concern for a "lost generation" of humanities scholars.

Yet by the mid-1990's, an increase in college enrollments and an unusually high rate of faculty retirements will create an abrupt demand for new faculty. There is grave reason to question whether we have in place a satisfactory set of policies to accommodate such demographic shifts while sustaining the quality of the enterprise.

While the costs of graduate education have steadily increased, substantial reductions have occurred in both the quantity and quality of support for graduate education. Federally funded fellowships and traineeships dropped from 60,000 in 1969 to fewer than 13,000 in 1981. Both undergraduate and graduate students have become progressively more dependent upon loans to finance their education. Between 1974 and 1984, the percentage of federal support for graduate and professional education provided as loans increased from 26% to 73%. Some students must rely so heavily on work to finance their education that they increase the time to degree; for doctoral students who already must forego income-generating employment until their mid- to late-twenties and beyond, any extension of the time to degree has potentially serious long-term consequences.

Because of the fundamental and growing importance of graduate education to the nation, it is imperative that we respond promptly and effectively to the problems that are developing within the enterprise.

Reauthorization of the Higher Education Act provides an important opportunity for the Congress to provide the means by which the Department of Education can help sustain the quality of graduate education throughout the nation. This can be accomplished in three ways: (1) by establishing and maintaining competitively funded grant and fellowship programs that will encourage and enable a portion of the nation's most talented students to pursue graduate education in all fields, (2) by providing broad-based financial support through grant, work, and loan programs to help the nation's graduate students meet the rising costs of graduate education, and (3) by expanding the effort to attract talented students from underrepresented groups into graduate education. We urge the Congress to provide in the Higher Education Act an explicit commitment to graduate education by authorizing a balanced set of programs designed to meet the diverse needs that exist in graduate education. Five of those programs now exist and should be extended with some modifications; three new programs should be created to address well-documented but unmet needs.

REAUTHORIZATION OF EXISTING PROGRAMS

Title IV

College Work-Study: This program has great potential for supporting many more graduate students if additional appropriations are made available and if appropriate measures of need are instituted. At the graduate level, the Work-Study program provides important opportunities for financial support through work that is functionally related to a student's educational objectives. Of increasing importance, the program provides a means for students to help meet the costs of their education without increasing indebtedness. By supporting what are, in effect, research assistantships in all academic fields, work study expands a concept that has long been valued in the sciences and engineering as an effective means to link the conduct of research and the training of researchers. Teaching assistantships supported by work-study not only provide training and financial assistance to students but assist the hard-pressed teaching budgets of universities.

Guaranteed Student Loan Program: With the dramatic reduction in graduate student support though grants and fellowships over recent years, the number of graduate students who depend on the GSL program has increased substantially, as has the extent of the need. Yet the amount graduate students can borrow is not keeping pace with the increasing costs of graduate education. Without some increase in loan limits, a growing number of students will be unable to complete their graduate educations.

At the same time, dependence on the GSL program by an increasing number of graduate students is generating serious concern over rising indebtedness. Rising costs have forced many students to borrow heavily for their undergraduate educations, with the consequence that some students entering graduate school have already accumulated substantial debts. For those who, as graduate students, must continue to rely on the GSL program, the cumulative indebtedness can become excessive. This is especially worrying for students who anticipate relatively low-paying careers. Excessive indebtedness may be influencing students to choose careers based principally on projected levels of earning rather than intellectual preference.

National Direct Student Loan Program: This program provides low-interest loans to especially needy graduate students and should be reauthorized as it currently exists with continued federal capital contributions to expand the loan funds available on campuses to needy students.

The NDSL program provides slightly more subsidized loan support and therefore contributes proportionately less to indebtedness than the GSL program. Nonetheless, we are concerned about the long-term impact of increased borrowing on the career choices of those who receive graduate degrees and on the decision of whether even to pursue a graduate education on the part of the most able students—who, of course, have other attractive options. Therefore, loan consolidation should be restored. Either separately or as part of consolidation, extended and graduated repayment options should be developed to ease the impact of indebtedness.

Title IX

National Graduate Fellows Program: This program provides portable, individual fellowships to exceptionally talented students for graduate study in the arts, humanities, and social sciences. By encouraging able students to pursue graduate work in these fields, and by providing comparable levels of support, this program complements the science and engineering fellowships funded by other federal agencies and restores a measure of balance to the federal commitment to excellence in graduate education.

Graduate and Professional Opportunities Program (GPOP): Minorities make up 20.9 percent of the nation's population but receive only 10.9 percent of doctoral degrees. Blacks make up 12.1 percent of the population but receive only 4 percent of doctoral degree. Of the 1,000 doctorates received by blacks in 1983, 715 were in education and social science/psychology; only 32 were in the physical sciences. Hispanics and Native Americans have equally disturbing patterns of underrepresentation.

Although the magnitudes vary by race and field, in general representation of Blacks, Hispanics, and Native Americans drops proportionally at each ascending level of our educational system, culminating in the severe underrepresentation of these groups among the faculties of the leading colleges and universities. This nation cannot afford such a loss of talent from any sector of our population. Diverse faculties are important for the intellectual vigor and creativity of our institutions, and minority faculty members can serve as important role models for talented individuals who may not otherwise consider themselves candidates for academic careers.

The GPOP program has been designed specifically to provide support for students from groups underrepresented in graduate and professional fields. The program awards grants on a competitive basis to institutions which in turn provide fellowships to underrepresented students for advanced study in selected graduate and professional fields. This program has provided valuable support for minorities and women and clearly should be continued, with minor modifications to raise awards under the GPOP program to levels comparable to other federally funded fellowships.

AUTHORIZATION OF THREE NEW PROGRAMS

Title IV

Need-Based Grants: Last fall, Congressman Ford introduced H.R. 6379, a bill that would provide additional broad-based financial assistance without increased reliance-on loans. Patterned after the SEOG program, the bill would provide grants to institutions based on the aggregate financial need of their full-time first- and second-year graduate and professional students. Institutions would select the students to be supported with such grant funds, with the stipulation only that such students have financial need and that the support provided be no less than $1000 nor more than $5000 per year. This program would provide institutions with considerable flexibility to use grant funds in ways that most effectively meet their local needs. It would prove extremely useful to both students and institutions in meeting the rising costs of graduate education.

Title IX

Competitive awards to strong academic departments to expand the quality and capacity of graduate education in key fields: Congressman Coleman has introduced H.R. 2199, which would provide for a program of grants competitively awarded to graduate departments or programs on the basis of proposals evaluated by panels of academic scholars. Departments would use these funds to attract and support promising graduate students and to provide support for research and educational activities related to their degree programs. Such a program would enhance both the quality and capacity of our nation's graduate education enterprise and should be given a high priority for inclusion in Title IX of the amended Higher Education Act.

Early Intervention Program: In Part A, Congress should authorize the Department of Education to administer an "early intervention" program through which it would competitively award grants to institutions for identifying talented minority undergraduates and providing them with effective, early exposure to the research and scholarly activities they will encounter in graduate school. Such exposure would take the form of summer research internships, seminars, and other educational experiences. Even on a modest scale, such a program would be a highly effective way to create a pool of minority students who have a competitive preparation for graduate education and would be an important complement to the GPOP program in the effort to increase the participation by underrepresented minorities in graduate education.

ASSESSING FINANCIAL NEED

As a society,we expect that parents will provide financial support for the undergraduate educations of their children, up to the limit of the parents' capabilities and assuming that the undergraduate is not, in fact, financially independent. Although regulations based on these expectations may make sense for undergraduate students of traditional college age, they contradict reality at the graduate level, where students are typically 22 years or older and no longer have access to the same kinds of parental contributions. We strongly urge Congress to revise current policy by establishing that, for the purpose of assessing financial need, graduate students are to be considered categorically independent upon enrollment in a graduate program, with the single obvious constraint that, beginning with the year of their enrollment in graduate school, they cannot be declared as dependents on any other person's income tax return. I should note that this position was recommended by the National Commission on Student Financial Assistance in its report on graduate education.

I would like to close with a quotation from "Signs of Trouble and Erosion: A Report on Graduate Education in America" by the National Commission on Student Financial Assistance: "In a world of increasing danger, greater complexity, and more difficult national and international problems—of larger risks and opportunities—graduate education is essential for securing the well-being of the nation ... But this Commission must report to the American people that it discerns signs of trouble, signs of erosion, in the nation's capacity ... The Commission is concerned that all of us apprehend the critical importance of graduate education to our national life and understand clearly the gamble we take if we do not respond when the enterprise is in distress."

The needs that would be met by the set of programs I have outlined this morning are real and growing, and we hope that the Congress will choose to authorize this significant investment in and commitment to graduate education in this country.

Mr. FORD. Thank you.

Dr. Clynch.

STATEMENT OF DR. EDWARD J. CLYNCH, ASSOCIATE PROFESSOR AND HEAD, DEPARTMENT OF POLITICAL SCIENCE, MISSISSIPPI STATE UNIVERSITY

Mr. CLYNCH. Mr. Chairman, I want to thank the subcommittee and you, first of all, for inviting me here. My name is Ed Clynch, and I am the head of the department of political science at Mississippi State University. I am here today representing the 215 member programs of the National Association of Schools of Public Affairs and Administration, which is known as NASP. I'm serving as the chair of that organization's Public Service Education Fellowship Committee.

I would like to ask, Mr. Chairman, that several letters that have been sent to you in your capacity as committee chair in support of public service education fellowships also be made part of the official record, if that would be possible.

Mr. FORD. Do you have them with you?

Mr. CLYNCH. No, the committee has.

Mr. FORD. Without objection, they will be placed in the record at this point.

Mr. CLYNCH. Thank you very much.

As citizens and public administration educators, we in NASPA applaud the use of the reauthorization process by Congress. We believe that it provides Congress with an opportunity to determine whether or not programs are meeting their stated missions and, furthermore, it provides an opportunity for Congress to ascertain whether or not programs are still needed, even if they are meeting their stated missions.

When Congress established the Public Service Education Fellowship Program about 10 years ago, it recognized that America needs its best leaders in both the public and the private sectors. The fellowships were established really with two purposes in mind: One, to make sure that quality and talented individuals were brought into the career patterns as public leaders and management people in the public sector; and the second was to ensure that quality minorities and women, who traditionally have been underrepresented in the public sector management arena, would be brought in.

NASPA believes the fellowships are serving these purposes, and we also believe that these purposes are still valid public policy. Public service education fellowships—the fellows that are there are continuing to enter the public sector. They're talented individuals, and they are coming from all segments of society.

If we might turn briefly to this question of continued need, something which, I guess, is raised in terms of government service, do we still need programs which are bringing into the public service these kinds of individuals. NASPA really unequivocally believes that public management never has been more critical to us today, given the economic, social, and political problems facing society.

The dilemmas that government is facing, the magnitude of the problems which must be addressed and which, as we all are aware, oftentimes must be addressed with very limited financial resources, really provides glaring evidence that the need continues for professional, highly talented and highly skilled public managers.

The need for highly skilled public managers exists at all levels of government, but it probably is most acute at the State and local level. State and local governments, now more than ever before, are being asked to solve a greater and greater number of problems which basically find their way onto their public agendas. And it should be pointed out that state and local governments, now more than ever before, are hiring graduated public service education fellows to meet their human resource management needs.

The bottom line, we believe, in many ways is that graduate fellows, graduated fellows, are in fact being placed; and they're being placed in government primarily because they possess the skills which are needed by government.

If we can turn just briefly and talk a little bit about some of the information I've included in my other testimony, my written testimony, about the extent this program is meeting some of the goals set out by Congress and more directly look at this.

First of all, if we'd look at the question about bringing into the ranks of the public management women and minorities. NASPA conducted a survey of its members in which 45 of the 58 programs receiving fellows—currently receiving fellowships, replied, as well as 10 who had received them in the past. We found that the program is meeting its goal of bringing minorities and women into the public management ranks.

Of the graduated fellows, minority females composed 13.4 percent, minority males 14.3 percent, and Caucasian females 38.2 percent. In essence, over two-thirds of those graduated fellows are in those targeted categories and are in the public sector.

If we turn then to the other question about quality of the people being brought in, to the extent that they're bringing into Government quality individuals, one of the things we attempted to ascertain was the kinds of positions that these people are holding. Well, if you start initially looking at the Federal level, you find that graduated fellows are holding positions in a number of agencies; and of course, you need to remember now that the program is only 10 years old. So when you talk about positions being held by these individuals, they really have a professional public management career of 10 years or less.

At the Federal level, a large number of these have been public management interns which, of course, involves going through a very rigorous selection process. In addition to this, we're finding that at the Federal level, some of these individuals are working in the General Accounting Office and in the Office of Management and Budget and in a variety of other agencies.

At the State level, we're finding that already again, despite the fact that you're talking about career patterns of 10 years or less, some of these individuals are agency directors, assistant directors, program coordinators, as well as holding a wide variety of staff and analytical positions.

At the local level, again you're finding, even with the limited time span that a number of these graduates are city managers, assistant city managers, program directors, and department heads.

We, in essence, I guess, would conclude by saying that really, overall, this program is doing a great deal to increase the efficiency and effectiveness of Government for really a very small amount of money. The annual appropriation is only $2½ million a year.

The fellows are distributed across the numbers of programs and the numbers of States, and we think that it's proven to be very beneficial.

I would like to thank you for the opportunity to be here, to make some brief remarks; and I would be more than willing to answer any questions anyone might have later.

Thank you very much.

[The prepared statement of Edward J. Clynch follows:]

PREPARED STATEMENT OF EDWARD J. CLYNCH, HEAD, DEPARTMENT OF POLITICAL SCIENCE, MISSISSIPPI STATE UNIVERSITY

Mr. Chairman and Members of the Subcommittee: My name is Edward J. Clynch. I am Head of the Department of Political Science at Mississippi State University. I am here today representing the National Association of Schools of Public Affairs and Administration in my capacity as Chair of this organization's Title IX Public Service Education Fellowship Committee.

The National Association of Schools of Public Affairs and Administration (NASPAA) unequivocally believes the quality of problem-solving and management in government has never been more critical to the economic, social and political health of our society than it is today. Furthermore our organization of 215 public administration and public affairs programs strongly believes efforts need to continue which bring fully qualified women and minorities, who are still underrepresented, into the public management ranks. We earnestly and without reservation urge the reauthorization of a program which is enhancing the capability of the public sector while at the same time increasing its representativeness: Title IX Public Service Education Fellowships. The numerous letters sent by NASPAA affiliated public management programs, which receive Public Service Education Fellowships, to members of their Congressional delegations, including letters to Subcommittee members from participating programs in their states, the over 75 letters sent to Congressman Ford, the Subcommittee Chair, by participating programs and others in the public administration community and the over 75 similar letters sent to Congressman Coleman, the Subcommittee Ranking Member, substantiates the broad support for reauthorization in all parts of the country. Like all Americans we are concerned with getting something for our money. It would be hard, in our opinion, to find another program which has such a positive impact for only 2.5 million per year.

Congress, recognizing that America needs its best leaders in both the public and the private sectors, established Public Service Education Fellowships in 1975 for "the preparation of persons for leadership and management careers at all levels of government—local state and federal—and in nonprofit community service agencies." At the same time Congress mandated the use of Title IX Fellowships "to recruit and prepare minorities and women for leadership and management careers where they have been traditionally underrepresented." This program, which requires Fellows to be fulltime students, prepares talented persons for the public service who desire such a career, but who in the past opted for fields of study leading to other careers, often because public management programs lacked adequate student financial assistance. The 138 schools, which have educated Fellows during this ten year period, are the leading public and private institutions in 43 states and the District of Columbia.

Congress limits, as it should, the life of many programs to a predetermined number of years with a detailed assessment occurring during the reauthorization process. As citizens and public administration educators, we in NASPAA applaud this process which ascertains whether programs are achieving their missions and, in addition, evaluates whether there is continued need for a program, even a program which is successfully meeting the goals established by Congress.

Addressing the question of continued need first, members of the National Association of Schools of Public Affairs and Administration, on the basis of our extensive knowledge of the public sector, respectively but vigorously challenge the assumption that there no longer exists a need for graduate education designed to improve the quality of government. We believe the need is as least as strong as it ever was, particularly at the state and local levels and especially for women and minorities.

The dilemmas of government and the magnitude of the problems which must be addressed, often with drastically reduced resources, is glaring evidence of the need for improved public management, problem solving and decision making. From the perspective of the present and recent Administrations, both stated and implied, a growing list of national ills are the result of ineffective government performance and management. Accepting even the most positive assessments and outlooks for the future, it is all but impossible to believe that the need for professional, well trained and highly skilled public service managers and problem-solvers at all levels of government, has waned. NASPAA questions any contention that sufficient talent in this area already exists.

Recent and the current Administrations, also argue that a greater number of problems on the public agenda would be better solved, indeed must be solved, at the state and local level, and in many cases within the non-profit sector. State and local governments, now more than ever before, are in need of professionally trained public administrators who are capable of effectively and efficiently implementing public programs. Many have need of professionals with sophisticated technical skills who are able to assess priorities and develop policy alternatives involving tradeoffs. In fact, Public Service Education Fellows are recruited heavily and usually successfully placed because of the ongoing demand for such individuals by state and local government.

We believe, for the reasons outlined above, that programs are needed to bring qualified persons from all backgrounds into the public sector. NASPAA also strongly believes, based on hard evidence, that Title IX Fellowships are achieving the goals articulated by Congress ten years ago. Outstanding public managers, including many females and minority group members, have been brought into the public and nonprofit sectors by this program. Responses to a NASPAA sponsored survey by 45 of the 58 affiliated schools who are receiving Title IX Fellowships, and by ten institutions who have been awarded Fellowships in the past, decisively confirms that Title IX Fellowships have succeeded in recruiting a large number of talented and highly motivated individuals who, upon graduation, are pursuing management careers in public and nonprofit organizations.The survey also unequivocally substantiates the positive effect of these Fellowships on the racial and gender diversity of the public sector professional cadre at all levels of government, in all regions of the country, in wealthy, urbanized states and poor rural states.

Table I displays the racial and sexual diversity of graduated Title IX Fellows. More than 65 percent are minorities and/or female. Clearly the Fellowships are serving as a vehicle for creating a more representative beaureaucracy.

Table II demonstrates the dispersion of placements among four targeted employer groups mentioned in the 1975 law. Clearly both female and male minority and white males are being placed at all levels of government and nongovernmental entities.

TABLE 1.—RACE AND SEX OF TITLE IX GRADUATES

	Number	Percentage
Caucasion male	259	34.1
Caucasion female	291	38.2
Minority male	109	14.3
Minority female	102	13.4
Total	761	100

TABLE 2.—PLACEMENT OF TITLE IX GRADUATES

	Caucasian male		Caucasian female		Minority male		Minority female	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Local government	106	40.9	87	29.9	35	32.1	31	30.4
State government	49	18.9	68	23.4	18	16.5	23	22.6
Federal government	43	16.6	51	17.5	14	12.9	19	18.6
Other	61	23.6	85	29.2	42	38.5	29	28.4
Total	259	100	291	100	109	100	102	100

Equally impressive is the nature of positions filled by Title IX graduates. Table III shows that several graduates already hold very responsible positions. The recent graduation of these persons (1975 or later) makes their current employment status even more impressive. Graduates working at the local and state levels hold positions as city managers, assistant city managers, and agency division directors. Federal positions are just as significant. Several graduates, from all sections of the country, have been selected as Presidential Management Interns, through a very competitive process, and are affiliated with a variety of agencies. Others are employed as evaluators with the General Accounting Office, as budget analysts with the Office of Management and Budget and as members of Congressional Staffs. A significant number of graduated fellows in the private sector are employed by nonprofit organizations in a variety of positions including director, assistant director and policy analysts. Only about 13 percent of the reported positions held by graduated fellows are in the private sector and a noticeable number of these are serving as public affairs consultants or consultants to governments. A few graduates are pursuing Ph.D. and law degrees. The message is clear: Title IX Public Service Education Fellowships are expanding the cadre of talented and dedicated public and nonprofit professionals.

TABLE 3.—*Positions of title IX graduates*

LOCAL

Administrative:	
City/county manager	4
Assistant city manager	12
Department directors (4 are finance directors)	10

Assistant directors	2
Program administrators	6
Total	34
Staff positions:	
Analyst	31
Budget Analyst	15
Personnel/Labor Relations	4
Assistant to the Director	16
Planner	21
Trainee/Intern	7
Other	8
Total	102
Total local Government	136

STATE

Administrative:	
Agency directors	4
Assistant directors	3
Program coordinators	6
Total	13
Staff:	
Executive assistant to director	6
Analyst	19
Budget analyst	7
Program auditor/evaluator	13
Planner	7
Legislative staff	5
University staff positions	13
Other	5
Total	75
Total State	88

FEDERAL

Administrative: Program managers	4
Staff:	
Pres. management intern	31
GAO evaluator	5
Policy research	7
Budget analyst (two with OMB)	3
Analyst	18
IRS agents	3
Congressional staff	8
Other	10
Total	85
Total Federal	89

NONGOVERNMENT

Profit:	
Business	38
Law	9
Consultants to Government	9
Total	56
Nonprofit:	
Administrators:	
Directors of organizations or divisions	6

Assistant directors	6
Program administrators	2
Total	14
Staff:	
Research/policy analyst	9
Budget analyst	2
Planner	3
Other	4
Total	18
Total non-government	88

FURTHER EDUCATION

PH.D. programs	16
Law	4
Other	4
Total further education	24
Total positions reported	425

Sincere and strong commitment to the improvement of government decisionmaking operations and ultimate performance of the public sector as service deliverers requires concrete action. Education institutions must be aided in their efforts to produce highly competent professionals for public service careers. This will continue to happen only if incentives such as Public Service Education Fellowships, targeted to encourage and enable persons of the highest caliber to enter educational programs designed to train public sector professionals, continue to be available. Educational institutions must also be aided in their efforts to create a more representative public service. With the demise of other educational resources, Public Service Education Fellowships remain one of the last sources of assistance which focuses on graduate education for women and minorities. Indeed, programs around the country report that most Fellows could not possibly embark and/or complete their public management graduate training without this assistance. NASPAA strongly believes the complex and monumental tasks facing the public sector, particularly in our city and state governments which are taking on increased responsibilities, argue persuasively for the continuation of this small but highly successful program for public management education. We respectively urge reauthorization.

Mr. FORD. Thank you.

Professor Walter.

STATEMENT OF PROF. PAUL H.L. WALTER, DEPARTMENT OF CHEMISTRY/PHYSICS, SKIDMORE COLLEGE

Mr. WALTER. Mr. Chairman and members of the subcommittee. My name is Paul Walter. I am a professor of chemistry and was until this term chairman of the Department of Chemistry and Physics at Skidmore College where I have taught since 1967.

Prior to that time I worked 7 years as a research chemist in the Central Research Department of the DuPont Co. I am active in the governance of the American Chemical Society, and am currently vice chairman of its budget and finance committee.

I appear here today, though, as national president of the American Association of University Professors, the largest and oldest association of college and university faculty members. We have submitted a longer statement on title IX which I will not repeat in detail. My purpose, rather, is to briefly summarize that statement and then to make some comments about the problems that we discuss there.

Based on the evidence available to us during the past year, we believe that it is necessary to bring to the attention of the members of this subcommittee the problems associated with an impending shortage of faculty. In fact, in some departments, engineering, computer science, this situation is not some future possibility. The shortage already exists.

The major problem is that there is a declining number of graduate students and a declining number of those graduate students demonstrate any interest in or commitment pursuing a career of college teaching. This decreasing supply of potential faculty is occurring at a time when we are aware of large numbers of faculty who will be retiring over the next decade.

In our statement, we point to the lost generation of scholars of the last decade who could not find academic positions because of the stabilization of undergraduate enrollments since the mid-1970's. We now foresee a much more serious situation, one in which the college and university teachers and researchers will not be there to educate America's students.

We will have substituted for a lost generation of potential professors a much larger lost generation of students. Our purpose is to prevent that situation from occurring during this next decade.

We propose an amendment to title IX which would provide grants to institutions for the following purposes: one, to award fellowships to graduate students who demonstrate a commitment to pursue a career in college teaching; two, to develop courses or programs within academic departments to assist graduate students in their preparation for college teaching careers; three, to establish postdoctoral teaching fellowships for new faculty; and four, to strengthen and revitalize faculty development and faculty exchange programs for midcareer faculty.

In proposing this new graduate fellowship program, we are aware that there are current programs which may have some impact on the problem we pose; but we believe that the problem is so great that it is necessary to target specifically those who desire—who demonstrate a desire to enter college teaching.

The outline of our recommendation provides for institutional grants which would be used to award stipends to doctoral level graduate students and to provide institutional allowances for tuition or fees or other required expenses.

We have also proposed that preferences in the awarding of grants be given to those institutions which have courses or programs specifically designed for potential college teachers.

Our second step would be to create postdoctoral faculty fellowships that would permit an institution to appoint a new faculty member similar but not identical to the Presidential Young Investigators Program at the National Science Foundation. Our purpose is to assure that the graduate students who have been recruited are able to find positions rather than be lured to industry or to Government.

Finally, we recommend the consolidation of several faculty development programs that are currently authorized in the Higher Education Act into one program. That would permit institutions greater flexibility in utilizing grants in those programs where need actually exists.

Our purpose is to strengthen the academic contributions of mid-career faculty, either within their own disciplines or by retraining them into new disciplines.

Similarly, we recommend the reestablishment of faculty exchange programs which have served an important function over the years of strengthening academic programs. The visiting professorship is an important factor in the growth and training of the American professoriate.

Let me now make a couple of personal comments to supplement this statement. As I mentioned at the beginning, my background started in industry as a research scientist, and after 7 years I went into teaching. During one of those years with the DuPont Co., I was on loan to their employee relations department where my function was to recruit Ph.D's, Ph.D. chemists and engineers, to work for the DuPont Co.

At that time, the early sixties, I had a very difficult task, because most of the top quality students that were coming out of the graduate schools sought academic jobs. The opportunities in academia were there, and they took them.

For 10 years I have been chairman of my department at Skidmore College. One of my functions has been to recruit faculty members for my department. Exactly the reverse has now occurred. If one goes to the American Chemical Society meetings and attends their employment clearinghouse, one discovers shockingly enough that the overwhelming majority of Ph.D's are now seeking positions in industry rather than in academe.

It seems to me that this has important implications for the future, for our national security and for the economic competitiveness of this country. The programs that we propose are programs that can be looked at as leverage programs. While we certainly support the other aspects of title IX, these programs that already exist will help the current group of graduate students. The program we propose will ensure that there will be a future group of graduate students.

Every one of these persons who goes on to teach in an academic institution will produce hundreds or thousands of future college graduates. Now why is it that we currently have some difficulties in attracting students to teaching?

Part of the problem has been addressed earlier today with respect to the debt burden that students have from the student loan funds. While we heard of the problems of a student who enters legal profession in New York paying back student debts with a $51,000 income, think of the greater problems of a person with a full debt entering the college teaching profession where assistant professors in the State of New York begin at some institutions at less than $14,500 with a Ph.D., and at mine which is a comparatively good institution as far as salaries are concerned, at about $20,000 in a competitive field.

So we find the problem that over the next decade there are fewer graduate students, fewer grant possibilities, less research opportunities in academe. These also lead fewer people entering the academic profession when there are opportunities for them outside.

We must do something over the next decade to resolve this problem, or at the very time that there are more students to teach in our colleges and universities and at the very time that there are a higher percentage of our faculty retiring, we will have fewer recruits to teach our students.

Thank you.

[The prepared statement of Paul H. L. Walter follows:]

PREPARED STATEMENT OF PAUL H.L. WALTER ON BEHALF OF THE AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

Mr. Chairman and Members of the Subcommittee: I am Paul H.L. Walter, professor of chemistry and chairman of the Department of Chemistry and Physics at Skidmore College. I appear here today as president of the American Association of University Professors, the nation's largest and oldest professional association of college and university faculty members.

In a letter to the chairman and Mr. Coleman dated April 29, 1985, which accompanied a series of recommendations for reauthorization of the Higher Education Act of 1965, the American Association of University Professors expressed grave concern over the serious shortage of faculty that will confront American higher education within the next decade. In our recommendations we proposed an amendment to Title IX that would authorize a program designed to encourage graduate students to pursue a career of college teaching, to assist them as they begin their teaching careers, and to provide current faculty with opportunities to strengthen their academic capabilities. Our purpose is threefold: (1) to encourage the most gifted and talented of our students to become college teachers and thus advance the standards of excellence in American higher education; (2) to prepare for the replacement of a large percentage of the current faculty as a result of the retirement of those who were appointed to their teaching positions during the period of expansion in the 1960's; and (3) to meet the more immediate demand for faculty in specific academic disciplines in which there are current shortages.

The problems confronting the academic community in replacing large numbers of faculty within the next decade are substantial. In the long term, according to a forthcoming study of the professoriate by Professors Howard Bowen and Jack Schuster, it will be necessary to replace 500,000 faculty by the year 2010. We are currently confronted by three harsh realities. The report by the National Institute of Education entitled "Involvement in Learning" reported that the proportion of entering college freshmen intending to pursue careers as college professors dropped from 1.8% in 1966 to .2% in 1982. "This 89 percent decline," the NIE study concludes, "bodes ill for the future of higher education." In its December 1983 report "Signs of Trouble and Erosion: A Report on Graduate Education in America," the Graduate Education Subcommittee of the National Commission on Student Financial Assistance, chaired by President John Brademas of New York University, reported both a decline in the numbers of superior undergraduates planning graduate study and a decline in the traditional pool of graduate students interested in academic careers.

The third reality is the warning sounded in 1978 by the Carnegie Council on Policy Studies in Higher Education of a "lost generation of scholars." The number of doctorates awarded peaked in 1972 and graduate school enrollments peaked in 1980. With the stabilization of undergraduate enrollments since the mid-1970's, new doctoral recipients have found fewer faculty positions available. Of the 31,000 doctoral recipients in 1984, fewer than half (44.7%) anticipated employment at an educational institution. The situation for those in the arts and humanities has grown increasingly serious. The sad truth is that we have lost a generation of scholars over the past decade. Our efforts now must be directed towards preventing a recurrence of that situation during the next decade.

Before we present our analysis of the factors that have led to the current situation, I believe it may be useful if we discuss our proposed amendment to Title IX. Our specific concern about the graduate education of those who may pursue a career in college teaching is but one part—albeit a significant part—of the larger issues currently confronting graduate education. Our concern about the future of the professoriate evolves from the Association's historical perspective of the past seventy years. We are acutely aware of the problems associated with changes in enrollment patterns. We are also sensitive to the need for continuous attention to questions related to both the quality and quantity of faculty. Finally, we know that since World War II there has been an inextricable relationship between the federal government and graduate education programs. This relationship has contributed to this nation's leadership in research and development. Our proposal, therefore, is designed to ensure that the academic base for leadership remains fundamentally strong while enlarging its contribution to a rapidly changing society.

We propose an amendment to Title IX which would provide grants to institutions for the following purposes: (1) to award fellowships to graduate students who demonstrate a commitment to pursue a career in college teaching; (2) to develop courses within academic departments to assist graduate students in their preparation for college teaching careers; (3) to establish post-doctoral teaching fellowships for new faculty; and (4) to strengthen faculty development programs and expand faculty exchange programs for mid-career faculty.

Our first goal is to attract highly qualified students into graduate study who will commit themselves to a career of college teaching. We fully understand that the current programs authorized under Title IX, Parts A, B, and C, may in the long term have the same impact as the program we are recommending. We fully support both the Graduate and Professional Study Grant Program and the National Graduate Fellows Program (also known as the Javits Fellowships). But we believe it is necessary to target specifically those who demonstrate a desire to enter college teaching. In this respect, we point to the example of the National Defense Fellowships, which were created under the National Defense Education Act of 1958 to increase the number of qualified college teachers in anticipation of the enrollment increase predicted for the decade of the 1960's. Preferences for the NDEA Fellowships were given to those who expressed an interest in college teaching.

We have inquired among faculty and administrators to determine how the purposes and policies of the current programs can be melded successfully. The academic community supports programs that recognize merit, encourage access to graduate education and college teaching for minorities and women, and provide adequate need-related financial assistance to both students and institutions. As we continue to develop our recommendations in greater detail, we are also aware of the budgetary constraints that will affect the reauthorization of the Higher Education Act. We recommend, however, that the Subcommittee consider a graduate fellowship program which includes the following: (1) grants made to institutions with comprehensive doctoral-level graduate programs; (2) the grants would permit those institutions to award stipends for up to three years to students who have been admitted to doctoral-level programs and who demonstrate a commitment to college teaching; (3) the amount of the stipend would be $10,000 or financial need, whichever is less; and (4) an institutional allowance of $6,000 or the tuition/fees and other required expenses, whichever is less, would be included in the grant. We recommend that the authorization provide for 500 new fellowships each year.

One of the recommendations of the NIE report is that graduate schools utilize internships supervised by senior faculty, a series of information seminars and discussion groups, workshops, a self-paced reading list, the learned societies, and professional journals in order to provide future college teachers with adequate experiences and training. "For them to teach well," the report says, "they must come to the job knowing how to determine who is leaning, how much they are leaning, and how they can be helped to learn more." We believe it is essential in the effort to strengthen excellence in college teaching to encourage academic departments to include courses or programs specifically designed for students interested in college teaching. Such courses or programs have contributed in the past to the preparation of college teachers. We would recommend that preference for the grants provided to institutions should be given to those institutions which have courses or programs specifically designed for potential college teachers.

The next step is to resolve the dilemma of the graduate student who has completed a doctoral program and is searching for a teaching position on campus. We recognize that the lure of industry and government may be overwhelming, but as academics we have a strong obligation to encourage highly qualified persons to enter our profession and to remain as productive and valued colleagues. The scientific and engineering faculties have attempted to resolve this dilemma through the Presidential Young Investigators program administered by the National Science Foundation. Although it is too early to fully evaluate the success of the program, we support its goals and we recommend a similar program of post-doctoral faculty fellowships that would reach beyond the scientific and engineering fields to the arts and humanities and also to baccalaureate institutions. Just as some institutions have had difficulty in the first year of the Presidential Young Investigators program in obtaining matching contributions from private sector industry, we believe a more difficult situation would arise in the arts and humanities and at baccalaureate institutions. For that reason we would eliminate the matching grant requirement. We would recommend a minimum initial institutional grant of $50,000 with continuing grants for an additional two years. This grant would provide full academic year compensation to the new full-time faculty member with the remaining funds available to the institution to defray indirect costs associated with the position. Our goal is support for 500 new college teachers each year.

Our third recommendation is to provide assistance to institutions for strengthening faculty development and faculty exchange programs. Both programs are essential to retaining mid-career faculty and to enhancing the academic programs of their institutions. Both are also deeply rooted in the academic community. Unfortunately, limited institutional resources have forced either their elimination or their diminution.

Faulty exchanges, which we have always regarded as a domestic Fulbright program, provide new teaching and research experiences to tenured faculty that enhance their academic capabilities and enrich the academic programs of both institutions. In the original Title III enacted in 1972, there was provision under sec. 304 for institutional grants for "exchange of faculty or students, including arrangements for bringing visiting scholars to developing institutions." These programs no longer exist, and the pattern of visiting professorships has changed dramatically. As the number of faculty openings diminished in the 1970's, exchange programs were sharply reduced. But faculty are keenly aware of the disadvantages of such immobilization. We recommend that exchange programs be authorized under Title IX in order to permit institutions to invite visiting professors for a semester or an academic year.

The Higher Education Act currently includes several references to faculty development programs under Titles III, V, VI, and IX. In addition, under Title X, the Fund for the Improvement of Postsecondary Education has provided grants for faculty development. We encourage you to consolidate these separate faculty development programs into one comprehensive program under Title IX and permit institutions to have the flexibility of utilizing grants received in those programs where need actually exists.

Long established faculty development programs continue to operate on some campuses although at a reduced scale. Many of the AAUP collective bargaining agreements include provisions for establishing or maintaining faculty development programs. Some provide for paid leaves while the faculty member is retraining, others provide modest fellowships, while others provide for reimbursement of tuition for graduate courses. A more limited number of institutions provide sabbatical or research leaves and travel allowances for research or attendance at professional meetings. A few institutions have college teaching centers which were established originally under grants provided by the Danforth Foundation.

We believe that faculty development programs will play a significant role in retaining current mid-career faculty during the next decade. In the late 1960's our Association carried out a successful faculty development program at the predominantly black institutions under a grant provided by the Ford Foundation. With appropriate funding that permits opportunities for additional graduate education or research, the faculty member who participates in such a program contributes to strengthening current programs or developing new academic courses. In some instances, faculty with related qualifications are able to move into new disciplines. Thus, faculty development programs may assist institutions now in their effort to fill positions in those academic areas in which there is a current shortage of faculty.

In preparing our recommendations, we took into consideration the factors that influenced those who in recent years have declined to join the professoriate. We also considered the views of current faculty members. In a recent preview of his forthcoming study of undergraduate education, Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, reported on the survey of more than 5,000 faculty members in preparation of the study. Seventy-five percent believe that faculty salaries have not kept pace with inflation. Sixty percent said they would seriously consider another academic job if one were offered and more than half would seriously consider a nonacademic opportunity if one came along. Nearly 70% said that getting research support in their field was harder now than two or three years ago. "The survey suggests," Boyer concluded, "that the concerns of the faculties are crucial, and the professoriate must be high on the national agenda."

In a recent survey sponsored by our Association, we asked faculty members to rate the characteristics which attracted them to a career in higher education. Highest on the list was intellectual excitement. Second was professional freedom. Third was concern for learning. Last on the list of seven characteristics was salary. However, when we asked them to name the most critical current problem in higher education, they responded that there is no money for research. The second problem they cited was poor student preparation. And the third problem is that they are underpaid.

The AAUP's annual report on the economic status of the profession, which was issued in March, 1985, analyzes the extraordinary decline in real income for faculty since Academic Year 1970-71. It concluded that to bring 1984-85 salary levels to their 1970-71 level in real terms would require an 18.9% increase. It also concluded that the total loss in real income, determined by calculating each of the past-year losses of real salaries since 1970-71, would be equivalent to almost two years of salary. The report points out that "the prospects of obtaining salary increases of this magnitude are remote," but adds, "the calculation is useful in emphasizing the cumulative impact of the salary erosion of the 1970's." A further analysis included in the report compared faculty salaries with salaries of middle- and upper-level professional, technical, and administrative personnel in the private sector and state and local employees who are not in education and concluded that "only college and university professors suffered substantial declines in real salaries during this period." But the report concludes on a more optimistic note. The growing concern about the quality of higher education and the capacity of higher education to provide well-trained people at all levels "seems almost certain to focus public attention on what needs to be done." "High on the priority list is raising faculty salaries so as to reward college and university professors for their work, prevent valued faculty members from being lured to other sectors of the economy, and attract into the profession talented young people who will become the scholars and teachers of the future."

We appreciate the strong commitment of members of this Subcommittee to assisting graduate and professional education. The issue is complex, as you know, and relates to a much smaller number of students than those engaged in undergraduate education. However, the tie that binds them, of course, is the need for highly qualified faculty who will teach the next generation of undergraduate and graduate students. We cannot afford as a nation or as a society to lose another generation of scholars.

As faculty we have a strong obligation to our students and our institutions to strengthen the quality of American higher education. We also have an obligation to prepare those who will join us or succeed us as faculty. The resources of our institutions will not permit us the luxury of doing what is necessary to attract highly qualified people into our profession. Our requests are based on what we believe can be done and should be done within the next several years. We will assume whatever burden is necessary, but we do need your continuing assistance.

Thank you for the opportunity to appear before you today, and I welcome your questions and comments.

Mr. FORD. Dr. Cerveny.

Mr. CERVENY. Thank you for the title.

Mr. FORD. Pardon me. Not yet doctor.

STATEMENT OF JOHN CERVENY, PRESIDENT, STUDENT GOVERNMENT, RENSSELEAR POLY-TECHNICAL INSTITUTE

Mr. CERVENY. Mr. Chairman and honorable members of the committee, my name is John Cerveny. I attend Rensselear Polytechnic Institute located in Troy, NY. As a student, I have the privilege of serving my campus as the RPI student senate's grand marshal, the position analogous to president of the student body, student government. Our student senate, unlike most student governments in the country, is composed of both graduate and undergraduate representatives. So for 4 years as an undergrad, I've come to understand the concerns of graduate students.

Unfortunately, we often tune out problems if they don't directly concern us. Usually, once a particular problem becomes personalized, it's looked at in a different light. I know this is true for me.

Even though in each of the years that I've been in student government I've been presented with graduate student concerns, the problems of postbaccalaureate study seem different now that I'm a graduating senior with hopes of continuing my education. I've pursued courses of study at RPI that will qualify me for a bachelors of science degree in industrial and management engineering this coming May.

As an undergraduate industrial engineering student, my first 2 years of study provided a strong background in the physical sciences. In my junior and senior years I've been introduced to industrial engineering and required, not by my school but by potential employers, to define an area of concentration within it. From my perspective, 4 years at the undergraduate level is not a sufficient amount of time both to gain exposure to all the concentrations in my major and to specialize in one of them.

For example, an industrial engineering bachelor's degree can lead to graduate study in operations research, manufacturing management, health care systems, management information systems, facilities layout or quality control. Graduate study is the logical extension expected of students.

I'm not sure how to really describe the shock felt by needy undergraduates when they first look into continuing study. Students think long and hard about whether graduate level education is right for them, whether there's a need in society for graduate level educated citizens, whether there's employment available in any particular field.

Imagine how foolish a fourth year undergrad would feel, having looked into these kind of issues, when she or he takes the next step and looks to see if graduate education can be affordable.

In order for me to attend RPI as an undergrad, my family, RPI's financial aid office, our local bank in Cedar Rapids, IA, which is my hometown, work-study employers and I were all able to put together a series of flexible packages that came close to meeting my cost of attendance. Through this teamwork or partnership, if you will, the cost of attendance at RPI, which is currently $14,500 a year, was brought into the range of my and my family's finances.

Over 4 years of study at RPI, sometimes I needed supplemental educational opportunity grants. Sometimes more work-study, and sometimes less. Each year I needed Pell grants which is the basic block of the financial aid package, to be able to continue my study.

I've included as an appendix a chart of the sources of Federal financial aid for the 4 years of my undergraduate career. A brief look at that chart shows that the flexibility was essential to the efficient allocation of scarecely available Federal financial aid funds.

I've tried to imagine what the financial aid letters would look like at the graduate level. I've spoken to other graduate students at RPI and actually had them show me personal financial information, so that I could know what to expect. As I said, I felt pretty let down.

There are no Pell grants for graduate students. There are no supplemental educational opportunity grants for graduate students. In fact, the need based grants that I've depended on to help finance my educatin so far have no counterpart at the postbaccalaureate level at all. What is the available financial assistance at the graduate level? Generally, work study or loans.

Well, the choices aren't very promising for needy students like me. My debt burden is already almost $25,000 without interest. Most teaching assistantship positions can't come close to paying for the cost of attendance at the graduate level at independent universities. So the choice is pretty well made for me. Someday I might be able to afford a graduate education, but it certainly won't be very soon.

I'd like to suggest that many graduate aid policy choices are very clear, just as my lack of choices was made clear to me. Each time I read or hear that our country needs to adopt advanced management techniques to compete in a global economy, I think of the hundreds of thousands of needy students that are actively discouraged from study at the graduate level simply because they can't afford it. I'm led to believe that our country needs more scholarly research, but I see minimal funding support from Congress for the graduate level.

Virtually every recommendation for title IX programs submitted to this committee acknowledges the paucity of the investment made at the graduate level. But even if better graduate aid is forthcoming, what form will it take? If only increased loans are provided, none of the students in financial circumstances similar to my own will benefit. The opportunity to double or triple my debt burden is not an incentive to pursue graduate studies.

If, on the other hand, a new initiative for aid were to be based on existing programs that have a proven track record of success, if a system is to be sought that will provide students and institutions with a flexibility that's needed to be an efficient allocator of resources, if broad based financial assistance without increased reliance on loans is what's needed, then this program already conceptually exists.

House Resolution 6379 was already introduced last fall by you, Mr. Chairman. This bill, patterned after the SEOG program that I and others put to good use at the undergraduate level, would be the answer to the great need we have for need based financial aid for graduate students.

It's a kind of program that we as students are already familiar with. It doesn't add to the mortgage on our future that we already carry from our baccalaureate studies. It gives a flexibility that institutions and students require for efficient allocation; and most importantly, it is a need based student financial aid program.

A program such as that outlined in H.R. 6379 has been a long time coming. In the complexity of today's world and the demanding times that our society faces, I think its time has come. Education at any level, undergraduate or graduate, cannot be bought on the cheap. I'm living proof that a well funded SEOG style program extended to two years of graduate study would be appreciated and used in a positive way.

Thank you.

[The prepared statement of John Cerveny follows:]

Prepared Statement of John Cerveny, on behalf of the National Coalition of Independent College and University Students

Mr. Chairman and Honorable Members of the Committee, my name is John Cerveny. I attend the Rensselear Polytechnic Institute, located in Troy, New York. As a student I have the privilege of serving my campus as RPI Student Senate's Grand Marshal—the position analogous to President of student government. Our Student Senate, unlike most student governments in the country, is composed of both graduate and undergraduate student representatives. So for four years as an undergrad, I've come to understand the concerns of graduate students.

Unfortunately, we often tune out problems if they don't directly concern us. Usually, once a particular problem becomes personalized, it's looked at in a different light. I know this is true for me.

Even though in each of the years that I've been in student government I've been presented with graduate student concerns, the problems of postbaccalaureate study seem different now that I'm a graduating Senior with hopes of continuing my education. I've pursued courses of study at RPI that will qualify me for a Bachelors of Science degree in Industrial and Management Engineering this coming May. As an undergraduate Industrial Engineering student my first two years of study provided a strong background in the physical sciences. In my Junior and Senior years, I've been introduced to Industrial Engineering and required—not by my school, but by potential employers—to define an area of concentration within it. From my perspective, four years at the undergraduate level is not a sufficient amount of time both to gain exposure to all of the concentrations in my major and to specialize in one of them. For example, an Industrial Engineering Bachelor's degree leads to graduate study in Operations Research, Manufacturing Management, Health Care Systems, Management Information Systems, Facilities Layout or Quality Control. Graduate study is the logical extension expected of students.

I'm not sure how to really describe the shock felt by needy undergraduates when they first look into continuing study. Students think long and hard about whether graduate level education is right for them; whether there's a need in society for graduate level educated citizens; whether there's employment available in any one particular field. Imagine how foolish a fourth year undergrad would feel, having looked into these kinds of issues, when she or he takes the next step—and looks to see if a graduate education can be affordable.

In order for me to attend RPI as an undergrad my family, RPI's financial aid office, our local bank in Cedar Rapids, Iowa (my home town), Work-Study employers and I were all able to put together a series of flexible packages that came close to meeting my cost of attendance. Through this teamwork, or partnership if you will, the cost of attendance at RPI (which is fourteen thousand five hundred dollars this year) was brought into the range of my—and my family's—finances.

Over four years of study at RPI, sometimes I needed Supplemental Educational Opportunity Grants; sometimes more work study and sometimes less; each year I needed Pell Grants—the basic block of the financial aid package—to be able to continue my study. I've included as an appendix a chart of the sources of federal financial aid for the four years of my undergraduate career. A brief look shows that flexibility was essential to an efficient allocation of scarcely available federal financial aid funds.

I've tried to imagine what the financial aid letters would look like at the graduate level; I've spoken to other graduate students at RPI and actually had them show me personal financial information so that I can know what to expect. As I said, I felt pretty let down.

There are no Pell Grants for graduate students. There are no Supplemental Educational Opportunity Grants for graduate students. In fact, the need based grants that I've depended on to help finance my education so far have no counterpart at the postbaccalaureate level at all. What is the available financial assistance at the graduate level? Work-study or loans.

Well, the choices aren't very promising for needy students like me. My debt burden is already nearly twenty-five thousand dollars—without interest. Most Teaching Assistantship positions can't come close to paying for the cost of attendance at the graduate level at independent universities. So the choice is pretty well made for me: someday I might be able to afford a graduate education, but it certainly won't be very soon.

I'd like to suggest that many graduate aid policy choices are very clear—just as my lack of choices was made clear to me. Each time I read or hear that our country needs to adopt advanced management techniques to compete in a global economy, I think of the hundreds of thousands of needy students that are actively discouraged from study at the graduate level simply because they can't afford it. I'm led to believe that our country needs more scholarly research, but I see minimal funding support from Congress for the graduate level. Virtually every recommendation for Title IX programs submitted to this Committee acknowledges the paucity of the investment made at the graduate level.

But even if better graduate aid is forthcoming, what form will it take? If only increased loans are provided, none of the students in financial circumstances similar to mine will benefit; the opportunity to double or triple my debt burden is not an incentive to pursue graduate studies.

If, on the other hand, a new initiative for aid were to be based on existing programs that have a proven track record of success; if a system is to be sought that will provide students and institutions with the flexibility that's needed to be an efficient allocator of resources; if broad based financial assistance without increased reliance on loans is what's needed; then, this program already conceptually exists. H.R. 6379, was already introduced last fall by you, Mr. Chairman. This bill, patterned after the SEOG program that I and others put to good use at the undergraduate level, would be the answer to the great need we have for need-based financial aid for graduate students. It's a kind of program that we, students, are already familiar with; it doesn't add to the mortgage on our future that we already carry from our baccalaureate studies; it gives the flexibility that institutions and students require for efficient allocation; and, most importantly, it is a need based student financial aid program.

A program such as that outlined in H.R. 6379 has been a long time coming; in the complexity of today's world and the demanding times that our society faces, its time has come. Education at any level—undergraduate or graduate—cannot be bought on the cheap. I'm living proof that a well-funded SEOG style program extended to two years of graduate study would be appreciated and used in a positive way. Thank you.

APPENDIX A.—FEDERALLY FUNDED FINANCIAL AID PROGRAMS

[Break down by undergraduate year]

Freshman Year: Pell Grant, SEOG Grant, Guaranteed Student Loan, National Direct Student Loan, College Work Study.

Sophomore Year: Pell Grant, Guaranteed Student Loan.

Junior Year: Pell Grant, Guaranteed Student Loan, National Direct Student Loan.

Senior Year: Pell Grant, Guaranteed Student Loan, National Direct Student Loan.

Mr. FORD. Thank you very much. Dr. Boyd.

STATEMENT OF DR. WILLARD L. BOYD, PRESIDENT, FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, IL

Mr. BOYD. Mr. Chairman and Mr. Hayes, I'm Willard Boyd, president of the Field Museum of Natural History in Chicago. The Field has the third largest natural history museum collections in the United States, and some of our biological collections rank first in the Nation and are used constantly by American and international biologists.

In addition to the Field, I am privileged to represent four other natural science research institutions which are gathered together in the consortium called the Associated Natural Science Institutions, and you have their names on the cover of my testimony.

It's commonplace in higher education today that many graduate students in our universities must leave their institutions to seek elsewhere the scholarly resources that will enable them to prepare their dissertations. Thus, we in our group propose that Mr. Coleman's bill also include support for students who prepare dissertations using the resources of natural history research museums and other nondegree granting institutions such as art museums, independent research institutes, and independent research libraries such as the New York Public Library and the Newberry in Chicago.

First, let me note that there is nothing in the current law that prevents universities from making fellowship awards to dissertation students at the Field Museum or elsewhere. In fact, such awards are not unheard of. However, they rarely happen simply because universities normally seek graduate students who can utilize the university's own resources and not the resources of other institutions.

The universities understandably want to build on their own strengths, not the strengths of others. The key component of our proposal is that, in order to be eligible for graduate fellowship awards, nondegree granting institutions must have a substantial history of cooperation with the universities in graduate education. They must have high quality academic staff, and they must have research resources that are otherwise unavailable in universities.

I'd like to give simply the example of the University of Chicago and the Field Museum. The University of Chicago has a Committee on Evolutionary Biology which is a degree granting unit that brings together scholars from a wide variety of the university's academic disciplines. The committee, however, does not limit its members to the faculty of the University of Chicago. The staff and research resources of the Field Museum are heavily relied upon in order to add breadth and depth to that program.

Now what precisely is the contribution of the Field Museum? The Field Museum's scientific staff is a group of internationally recognized scholars in anthropology, botany, geology, and zoology. Two-thirds of our 32 curators hold joint appointments in colleges and universities. Over the past 5 years, our curators have served on more than 60 doctoral thesis committees, primarily at the University of Chicago. Over the same period, 53 students have worked in residence at the Field for periods ranging from several months to several years to accomplish their dissertations.

We think Mr. Coleman's bill could easily be modified so that nondegree granting institutions could compete for scholarship awards along with our Nation's great research universities. We agree with those universities that distribution of the awards should be based on merit. Our institutions are not asking for set-aside for any particular dissertation fellowships for their institutions. Rather, we think it would be fair that we be permitted to compete on the basis of merit solely with other eligible institutions.

I thank the subcommittee for this opportunity to testify.

[The prepared statement of Dr. Willard L. Boyd follows:]

PREPARED STATEMENT OF DR. WILLARD L. BOYD ON BEHALF OF THE ASSOCIATED NATURAL SCIENCE INSTITUTIONS

Mr. Chairman, members of the Subcommittee, I am Willard Boyd, President of the Field Museum of Natural History in Chicago. The Field is the third largest natural history museum in the United States and some of our biological collections rank first in their size and in their use by biologists from this country and from the international community. In addition to the Field, I am privileged to represent a consortium of our country's five natural history museums that are distinguished by the amount and quality of basic research that is conducted in their laboratories. The consortium is called The Associated Natural Science Institutions; the members are noted on the cover sheet of this testimony.

It is commonplace in higher education today that many graduate students in U.S. universities must leave their institutions to seek elsewhere the scholarly resources that will enable them to prepare their dissertations. The legislation that we propose is intended to support students who prepare dissertations using the resources of natural history museums and other non-degree granting institutions such as art museums, independent research institutes and independent research libraries such as the New York Public Library. And the Newberry in Chicago.

I will describe The Field Museum's cooperative program with the University of Chicago in a moment, but first let me note that there is nothing in current law that prevents universities from making fellowship awards to dissertation students in the Field Museum and elsewhere. In fact, such awards are not unheard of. However they rarely happen simply because universities normally seek graduate students who can utilize the university's own resources not the resources of other institutions. They, understandably, want to build on their own strengths, not the strengths of others.

The consequences for the biological sciences is serious indeed. Increasingly, the biological disciplines that deal with the whole animal or the whole plant are becoming localized in museums and botanical gardens. Universities for their part are directing their attention and resources to the staffing and funding of molecular biology and biotechnology. Student support in the traditional biological disciplines is available in very small amounts and most of what is available comes from our own institutions.

The key component of our proposal is that, in order to be eligible for fellowship awards, non-degree granting institutions must have a substantial history of cooperation with universities in graduate education; they must have high quality academic personnel; and they must have research resources that are otherwise unavailable in the university. The Field Museum and the University of Chicago perhaps typify that kind of arrangement.

The University of Chicago has a Committee on Evolutionary Biology which is a degree granting unit that brings together scholars from a wide variety of the University's academic disciplines. The committee, however, does not limit its members to the faculty of the university. The staff and research resources of the Field Museum, the Brookfield Zoo and the Argonne National Laboratory are used extensively and they provide a great deal of flexibility for the program.

What is the contribution of the Field? The Field Museum's scientific staff is a community of internationally recognized scholars in anthropology, botany, geology, and zoology. Two-thirds of our 32 curators hold joint appointments in colleges and universities and together they teach an average of five university courses each year. Over the past five years, our curators have served on more than 60 doctoral thesis committees primarily at the University of Chicago. Over the same period, 53 students have worked in residence at the Field for periods ranging from several months to several years.

In our proposal, we ask that fifty two-year fellowships be awarded each year to consortia of universities and non-degree granting institutions at a cost of approximately $5 million each year. Let me confess that our draft legislation was modelled closely after the graduate fellowship bill (H.R. 2199) introduced by Representative Coleman. Instead of passing altogether new legislation for non-degree granting institutions, we think Mr. Coleman's bill could be modified rather simply so that non-degree granting institutions could compete for fellowship awards along with our nation's great research universities.

Let me conclude by saying that we agree with the universities that the distribution of awards should be based principally on merit. Our institutions are not proposing that awards be set aside for their use. We think, however, that we should be permitted to compete on an even basis with other eligible institutions.

I thank the Chairman and the Subcommittee members for this opportunity to testify.

Mr. FORD. Thank you very much. That's fine timing. They're ringing the bell for another vote, and I suspect that this is going to happen quite frequently from here on.

I won't ask any questions at this time. I will just tell you, John, that virtually every student association representative who has talked to us this year is full of something like you just told us about what's facing the student in terms of uncertainty; and of course, we would be very happy to have this legislation finished and on the books with some assurance that it's not going to be attacked too quickly, so that people would be able to know what is and what is not going to be available.

Dr. Sample, colleges and universities are under frequent attack these days by minority groups who draw attention to the fact that the numbers of their groups represented on campus, and particularly in graduate education, are declining. Would you care to tell me what's happening in New York in your system, and what you think is the cause of this general problem across the country of a decline after what we thought were a number of efforts to facilitate the entering of minorities into these programs?

Mr. **Sample**. Mr. Chairman, on our particular campus the enrollment of minority students is actually increasing; but I think it is increasing because we happen to be making a very, very strong effort to increase it. I guess what I'm saying is that, while the data at SUNY, Buffalo would run contrary to what you say, I think what you've just stated is in fact the national trend.

I don't know what all the factors are throughout the country, and indeed the factors might be very different from one area of the country to the other. Certainly, at the graduate and professional level, there is not, as we've heard repeatedly today, there is not the spectrum of financial aid programs available that there are at the undergraduate level.

So it's harder for us, and I'm sure it's harder for every institution to structure a total aid package for minorqty students that makes it reasonably attractive for them to come into the program without incurring a huge debt burden.

So I think that's one of the very serious factors. I think, Mr. Chairman, the other thing that happens is that a lot of minority students are attracted into industry after they complete their undergraduate program. There are some very good opportunities for these students.

That's why I think this early identification amendment to the Higher Education Act is so important, so that we can go out to the undergraduate programs at SUNY, Buffalo but at Buffalo State College, at Canisius College that was represented here, and identify promising minority students and work with those students while they're still undergraduates to try to persuade them of the long term advantages to them and to the country of having them pursue a graduate or professional degree.

So I think, at least from our experience, it takes two sides. It takes the special financial aid package, because many of these students are financially, materially disadvantaged. Second, it takes early identification of students who show a lot of potential and requires on our part working with those students while they're still undergraduates to give them special preparation and special motivation to enter into one of our graduate and professional programs.

Mr. **Ford**. Mr. Hayes.

Mr. **Hayes**. Thank you, Mr. Chairman. Dr. Boyd, I hope we'll be able to arrange an appointment where I can sit down and discuss the relationship between the museum and the University of Chicago, which is part of my district, and I am concerned about it, and see how I can be of help in trying to expedite greater working together and greater understanding as to the sense of the direction in which you're going.

I understand your problem. The undergraduate—As an undergraduate student, you've got help. You've got a dilemma when you become a graduate student. I know something about Cedar Rapids, IA. I'm just curious what your parents do.

Mr. **Cerveny**. My father's retired. My mother is a bookkeeper.

Mr. **Hayes**. And you need help.

Mr. **Cerveny**. Pardon me?

Mr. **Hayes**. You don't have a family, do you?

Mr. **Cerveny**. I have six sisters and two brothers.

Mr. **Hayes**. I mean, you're not married?

Mr. **Cerveny**. Oh, no.

Mr. **Hayes**. Don't do it yet.

Mr. **Ford**. Stay away from students.

[Whereupon, at 1:37 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

I

99TH CONGRESS
1ST SESSION

H. R. 2199

To amend title IX of the Higher Education Act of 1965 to create a program of graduate assistance in areas of national need, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 24, 1985

Mr. COLEMAN of Missouri introduced the following bill; which was referred to the Committee on Education and Labor

---

A BILL

To amend title IX of the Higher Education Act of 1965 to create a program of graduate assistance in areas of national need, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That title IX of the Higher Education Act of 1965 is amended—

(1) by redesignating parts D and E as parts E and F, respectively;

(2) by redesignating sections 941, 942, 951, 952, and 953, and any references thereto, as sections 951, 952, 961, 962, and 963, respectively; and

(3) by inserting after part C the following new part:

"PART D—GRADUATE ASSISTANCE IN AREAS OF NATIONAL NEED

"PURPOSE

"SEC. 941. In order to sustain and enhance the capacity for teaching and research in areas of national need, it is the purpose of this part to provide, through academic departments and programs of institutions of higher education, a fellowship program to assist graduate students of superior ability who demonstrate financial need.

"GRANTS TO ACADEMIC DEPARTMENTS AND PROGRAMS OF INSTITUTIONS

"SEC. 942. (a) The Secretary shall make grants to academic departments and programs and other academic units of institutions of higher education that provide courses of study leading to a graduate degree in order to enable such institutions to provide assistance to graduate students in accordance with this part.

"(b)(1) The principal criterion for the allocation of awards shall be the relative quality of the graduate programs presented in competing applications. Consistent with an allocation of awards based on quality of competing applications, the Secretary shall, in making such grants, promote an equitable geographic distribution among eligible public and private institutions of higher education.

"(2) The Secretary shall approve a grant recipient under this part for a three-year period. From the sums appropriated under this part for any fiscal year, the Secretary shall not make a grant to any academic department or program of an institution of higher education of less than $100,000 or greater than $500,000 per fiscal year.

"(3) Whenever the Secretary determines that an academic department or program of an institution of higher education is unable to use all of the amounts available to it under this part, the Secretary shall, on such dates during each fiscal year as the Secretary may fix, reallot the amounts not needed to academic departments and programs of institutions which can use the grants authorized by this part.

"(c)(1) The Secretary shall make new grant awards under this part only to the extent that each previous grant recipient has received continued funding in accordance with subsection (b)(2).

"(2) To the extent that appropriations under this part are insufficient to comply with paragraph (1) of this subsection, available funds shall be distributed by ratably reducing the amounts required to be awarded by subsection (b)(2).

"INSTITUTIONAL ELIGIBILITY

"SEC. 943. (a) Any academic department or program of an institution of higher education that offers a program of post-baccalaureate study leading to a graduate degree in an area of national need (as designated under subsection (b)) may apply for a grant under this part. No department or program shall be eligible for a grant unless the program of post-baccalaureate study has been in existence for at least four years at the time of application for assistance under this part.

"(b) After consultation with the National Science Foundation, the National Academy of Sciences, the National Endowments for the Arts and the Humanities, and other appropriate Federal and nonprofit agencies and organizations, the Secretary shall designate areas of national need, such as mathematics, biology, physics, chemistry, engineering, computer science, or foreign languages or areas studies. In making such designations, the Secretary shall take into account the extent to which the interest is compelling and the extent to which other Federal programs support post-baccalaureate study in the area concerned.

"CRITERIA FOR APPLICATIONS

"SEC. 944. (a) The Secretary shall make grants to academic departments and programs of institutions of higher education on the basis of applications submitted in accordance with subsection (b). Applications shall be ranked on program quality by geographically balanced review panels of nationally recognized scholars. To the extent possible (consistent with other provisions of this section), the Secretary shall make awards that are consistent with recommendations of the review panels.

"(b) An academic department or program of an institution of higher education, in its application for a grant, shall—

"(1) describe the current academic program of the applicant for which the grant is sought;

"(2) provide assurances that the applicant will provide, from other non-Federal funds, for the purposes of the fellowship program under this part an amount equal to at least 25 percent of the amount of the grant received under this part;

"(3) set forth policies and procedures to assure that, in making fellowship awards under this part the institution will seek talented students from traditionally underrepresented backgrounds, as determined by the Secretary;

"(4) set forth policies and procedures to assure that, in making fellowship awards under this part, the institution will make awards to individuals who—

"(A) have financial need, as determined under criteria developed by the institution;

"(B) have excellent academic records in their previous programs of study;

"(C) plan teaching or research careers; and

"(D) plan to pursue the highest possible degree available in their course of study;

"(5) set forth policies and procedures to ensure that Federal funds made available under this part for any fiscal year will be used to supplement and, to the extent practical, increase the funds that would otherwise be made available for the purposes of this part and in no case to supplant those funds;

"(6) provide assurances that, in the event that funds made available to the academic department or program under this part are insufficient to provide the assistance due a student under the commitment entered into between the academic department or program and the student, the academic department or program will endeavor, from any funds available to it, to fulfill the commitment to the student;

"(7) provide that the applicant will comply with the limitations set forth in section 945; and

"(8) include such other information as the Secretary may prescribe.

"AWARDS TO GRADUATE STUDENTS

"SEC. 945. (a)(1) From at least 80 percent of the funds received under this part, an academic department or program of an institution of higher education shall make commitments to graduate students of any point of their graduate study to provide awards for the length of time necessary for a student to complete the course of graduate study, but in no case longer than 5 years. A fellowship awarded to a student shall consist of a stipend and the payment of tuition and fees.

"(2) No such commitments shall be made to students under this part unless the academic department or program has determined adequate funds are available to fulfill the commitment either from funds received or anticipated under this part, or from institutional funds.

"(b) The size of the stipend made to students for an individual academic year shall be determined by the institution, except that no annual stipend award under this part may exceed $10,000, or the demonstrated level of need (according to criteria of need developed by the institution), whichever is less.

"(c) Notwithstanding the provisions of subsection (a), no student shall receive an award (1) except during periods in which such student is maintaining satisfactory progress in, and devoting essentially full time to, study or research in the field in which such fellowship was awarded, or (2) if the student is engaging in gainful employment other than part-time employment involved in teaching, research, or similar activities determined by the institution to be in support of the student's progress towards a degree.

"ASSISTANCE FOR THE GRADUATE PROGRAM

"SEC. 946. (a) From up to 20 percent of the funds received under this part, the academic department or program of an institution of higher education may conduct activities to improve the quality of the academic program offered at the academic department or program, including—

"(1) acquisitions of library resources;

"(2) acquisition, lease, or upgrading of laboratory or instructional equipment;

"(3) support for research projects of faculty and fellowship recipients; and

"(4) support for the preparation and delivery of academic papers, including necessary travel expenses.

"(b) Funds made available pursuant to this part may not be used for the general operational overhead of the academic department or program.

"AUTHORIZATION OF APPROPRIATIONS

"SEC. 947. There are authorized to be appropriated to carry out the provisions of this part $150,000,000 for each of the fiscal years 1986 through 1990.".

98TH CONGRESS
2D SESSION

H. R. 6379

To establish an improved system for providing assistance to graduate students attending institutions of higher education, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

OCTOBER 3, 1984

Mr. FORD of Michigan introduced the following bill; which was referred to the Committee on Education and Labor

---

A BILL

To establish an improved system for providing assistance to graduate students attending institutions of higher education, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Graduate Assistance Program Act of 1984".

AMENDMENT TO THE HIGHER EDUCATION ACT OF 1965

SEC. 2. (a) Title IV of the Higher Education Act of 1965 is amended by inserting after part C the following new part:

"PART D—GRADUATE STUDENT ASSISTANCE PROGRAMS

"SUBPART 1—GRADUATE STUDY GRANTS

"PURPOSE; AUTHORIZATION

"SEC. 451A. (a) It is the purpose of this part to provide, through institutions of higher education, grants to assist in making available the benefits of graduate study to first- and second-year graduate and professional students who demonstrate financial need.

"(b) For the purpose of enabling the Secretary to make payments to institutions of higher education which have made agreements with the Secretary in accordance with section 451C, there are authorized to be appropriated such sums as may be necessary for fiscal year 1986 and each of the five succeeding fiscal years for grants to graduate and professional students.

"(c) Funds appropriated pursuant to subsection (b) shall be available on an academic year basis in accordance with section 412 of the General Education Provisions Act.

"AMOUNTS AND DURATION OF GRANTS

"SEC. 451B. (a)(1) From the funds received by it for such purpose under this subpart, an institution which awards a graduate study grant to a student for an academic year shall pay to that student an amount determined under paragraph (2).

"(2)(A) The amount of the payment to any student pursuant to paragraph (1) shall be equal to the amount determined by the institution, in accordance with regulations prescribed by the Secretary, to be needed by that student to pursue a course of graduate or professional study at the institution, except that such amount shall not exceed $5,000 nor be less than $1,000.

"(B) Regulations prescribed by the Secretary under subparagraph (A) shall not include any parental contribution as part of an expected family contribution to the cost of attendance.

"(b) A student may receive a grant under this subpart only as a first-year or second-year graduate or professional student.

"SELECTION OF RECIPIENTS; AGREEMENTS WITH INSTITUTIONS

"SEC. 451C. (a) An individual shall be eligible for the award of a graduate study grant under this subpart, if the individual—

"(1) is a first-year or second-year graduate or professional student;

"(2) is enrolled at an institution of higher education in a program leading to a graduate or professional degree;

"(3) will be carrying, during the year covered by the grant, the normal full-time academic workload, as determined by the institution; and

"(4) meets the requirements of section 484.

"(b) From among individuals who are eligible for graduate study grants for each fiscal year, the institution shall, in accordance with the agreement under section 487, and from the amount allocated to the institution for that purpose for that year under section 451D(b), select individuals who are to be awarded such grants and determine, in accordance with section 451B, the amounts to be paid to them. Not less than 20 per centum of the amount paid to each recipient shall be made available by the institution from non-Federal sources.

"APPORTIONMENT AND ALLOCATION OF FUNDS

"Sec. 451D. (a) The Secretary shall allocate the amount appropriated under section 451A(b) among institutions which have made agreements with the Secretary in accordance with section 451C on the basis of the Secretary's determination of the relative need for assistance of first-year and second-year graduate and professional students for financial assistance to pursue graduate and professional study. Such determination of relative need shall be made in accordance with a formula prescribed by the Secretary by regulation.

"(b) The Secretary shall, from time to time, set dates before which institutions must file applications for allocation to such institution of graduate study grant funds for any fiscal year.

"(c) Each institution receiving an allocation under this section may use its allocation for grants to first-year and second-year graduate and professional students in such manner as the institution determines will best achieve the purposes of this subpart.

"(d) Payments shall be made from allocations under this section as needed.

"DEFINITIONS

"SEC. 451E. For purposes of this subpart—

"(1) the term 'institution of higher education' has the meaning specified in section 1201(a);

"(2) the term 'graduate or professional student' has the meaning provided such term in regulations prescribed by the Secretary for purposes of part B of this title; and

"(3) the terms 'first-year' and 'second-year' refer to students enrolled in their first or second academic year of graduate or professional study, as determined in accordance with regulations prescribed by the Secretary.".

(b) The Higher Education Act of 1965 is further amended—

(1) by redesignating parts B and C of title IX as subparts 2 and 3 of of part D of title IV (as added by subsection (a) of this section);

(2) by redesignating sections 921, 922, 923, 924, 931, 932, 933, and 934 as sections 453A, 453B,

453C, 453D, 456A, 456B, 456C, and 456D, respectively;

(3) by inserting such redesignated subparts and sections at the end of part D of title IV (as added by subsection (a) of this section) and deleting them from their previous location; and

(4) by striking out "this part" each place it appears in such redesignated sections and inserting in lieu thereof "this subpart".

(c)(1) Section 453B(e) of such Act (as redesignated by subsection (b)(2)) is amended by striking out subsection (e).

(2) Section 453D of such Act (as redesignated by subsection (b)(2)) is amended by striking out "1981 and 1982" and all that follows and inserting in lieu thereof "1985 through 1989.".

(3) Section 456A(a) of such Act (as so redesignated) is amended by striking out "October 1, 1985" and inserting in lieu thereof "October 1, 1989".

○

Council on Legal Education Opportunity

1800 M STREET, N.W., SUITE 290, NORTH LOBBY, WASHINGTON, D.C. 20036 TELEPHONE (202) 785-4840

LAWRENCE C. JOHNSON
Executive Director

September 30, 1985

Honorable William D. Ford
Chairman
Subcommittee on Postsecondary Education
320 Cannon House Office Building
Washington, DC 20515

Dear Mr. Chairman:

Enclosed is a copy of the Statement of Lawrence Chism Johnson on behalf of the Council on Legal Education Opportunity regarding the reauthorization of Title IX, Graduate Programs, Part D - Fellowships for Other Purposes of the Higher Education Act of 1965, as Amended.

It is offered to provide to you and members of the Subcommittee on Postsecondary Education information about the on-going success of the Council on Legal Education Opportunity (CLEO) in carrying out, pursuant to Part D, activities that assist individuals from disadvantaged backgrounds to undertake training for the legal profession. We hope this statement will aid you and the members of the Subcommittee in your consideration of the reauthorization of this important legislation.

Sincerely,

Lawrence C. Johnson

Lawrence C. Johnson
Executive Director

LCJ:bar
Enclosure

Sponsored jointly by
American Bar Association — Association of American Law Schools — Hispanic National Bar Association
Law School Admission Council — National Bar Association

STATEMENT

of

LAWRENCE CHISM JOHNSON

on behalf of the

COUNCIL ON LEGAL EDUCATION OPPORTUNITY

to the

SUBCOMMITTEE ON POSTSECONDARY EDUCATION

of the

COMMITTEE ON EDUCATION AND LABOR

of the

UNITED STATES HOUSE OF REPRESENTATIVES

pertaining to the

REAUTHORIZATION OF TITLE IX, GRADUATE PROGRAMS
PART D - FELLOWSHIPS FOR OTHER PURPOSES

of the

HIGHER EDUCATION ACT OF 1965 as AMENDED

SEPTEMBER 30, 1985

Mr. Chairman and Members of the Subcommittee:

On behalf of the Council on Legal Education Opportunity (CLEO), I submit this testimony regarding the reauthorization of Assistance for Training in the Legal Profession, Title IX, Part D of the Higher Education Act of 1965, as amended, pursuant to which CLEO undertakes activities to assist individuals from disadvantaged backgrounds to obtain a legal education.

CLEO has been in operation since 1968. It was formed as a joint effort by the Association of American Law Schools (AALS), the American Bar Association (ABA), the National Bar Association (NBA), and the Law School Admission Council (LSAC), and in 1972 La Raza National Lawyers' Association (now the Hispanic National Bar Association (HNBA)) joined as a sponsoring organization. CLEO's programs were designed and continue to serve those educationally and economically disadvantaged persons who have had limited access to a legal education. And while there is evidence that access to legal education has increased since 1968, in contrast to previous levels, access to graduate and professional opportunity by disadvantaged Americans continues to be an elusive goal. The goal of greater economic and political participation in the mainstream of society remains an unrealized dream for many: For example, the 1982 Annual Survey on Current Population Statistics of the Bureau of Census reports that of 606,000 lawyers in the United States, only 3.6% were members of a minority group. Currently, this percentage has increased to just over 4% of the more than 650,000 lawyers nationally.

Furthermore, higher education has proven to be an effective vehicle for obtaining a more equitable distribution of political influence. This is because those persons most involved in the decision-making process of this country are, themselves, products of the higher education system. This phenomenon is particularly germane to the legal profession, given its role within the country's decision-making process generally and its historic lack of accessibility by disadvantaged persons. The profession's impact on the formation of national policy is widely conceded because of the relationship of lawyers to all three branches of government, comprising almost exclusively the judicial, and significant percentages of both the legislative and executive branches.

The CLEO program works to increase the number of disadvantaged persons within the legal profession by providing an alternate mechanism for assessing, within the law school environment itself, the potential of each program participant for the study of law. Thus, the program is designed to serve those persons who aspire and are qualified to enter the legal profession but who may be unable to gain admission to law school through the traditional admission process.

The program achieves its goal of identifying qualified law school candidates and providing the opportunity for law school matriculation via pre-law summer institutes for prospective law students and the provision of annual fellowships.

The academic component of the Institutes is administered by seven (7) law schools located across the country,[1] sponsored jointly by CLEO and regional consortia of ABA-accredited law schools. The Institutes are based upon the premise that significant numbers of economically and educationally disadvantaged students can be identified and prepared to successfully negotiate the law school curriculum. These Institutes mirror the law school experience by providing a six-week intensive study program in legal analysis and law development and emphasize abstract thinking, legal research and legal writing techniques. The Institutes are staffed by regular law faculty whose primary responsibility during the Institute is to evaluate each student's potential for successfully mastering the law school curriculum. Students who successfully demonstrate this potential are provided law school placement assistance and an annual stipend.

The CLEO Summer Institutes have been highly successful. Since CLEO's inception, 3,723 disadvantaged students have participated in the Institutes, 3,417 have entered law school, 1,951 have graduated and over 600 students are presently enrolled in ABA-accredited law schools nationwide. The attached CLEO Participant Data Report provides statistics through 1983 (the latest available data) on the performance of CLEO students.

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[1] The host law schools in 1985 were: California Western School of Law in conjunction with the University of San Diego; the University of Utah in conjunction with Brigham Young University; Southern University; University of Iowa; University of Richmond; Georgetown University; and, Dickinson School of Law.

This data clearly demonstrates that CLEO Fellows have attained an impressive record of achievement by any measure, including performance within the academic arena of law school, bar performance, and most importantly, the employment activities of the program's graduates. The program has produced approximately 1,951 law school graduates involved in a broad spectrum of legal and law-related activities, including lawyers (public interest, private, corporate); judges; state representatives; law professors; executive administrators in various fields; Congressional staff, etc. The net result of the program has been increased access to the legal system and to the decision-making machinery of the country by those who have been disenfranchised for reason of race and/or economic status. Thus, the CLEO model of academic and financial support is one that works!

The continued success of the Summer Institutes, however, has been, to an increasing degree, dependent upon the generosity and largess of the law school community. Despite the previous unlimited authorization through Fiscal Year 1980 and a five million dollar ceiling thereafter, increased to ten million dollars in Fiscal Years 1984 and 1985, the Legal Training for the Disadvantaged Program has annually received only one million dollars in appropriations, except in Fiscal year 1985, when the appropriation was raised to $1.5 million dollars. This appropriation ceiling has limited the number of students which can be accommodated by the program and has placed a greater burden on participating law schools to cover increasing institute, tuition and living costs from their own financial resources.

Initially, the non-federal share represented between 30-40% of the total institute costs. However, over the last several years, the ever-spiralling costs of goods and services coupled with the effects of inflation, have thrust an even greater share of the Institutes' operating costs upon the law school. Given the fixed level of federal support, the law school community now absorbs approximately 60% of institute costs, as a demonstration of their commitment to the program. The law schools, without more federal assistance, cannot continue to maintain the academic institutes, while themselves facing reduced education budgets.

In addition, the law schools are asked to provide tuition scholarships, as well as other forms of financial support in recognition of the economic needs of the students served by the program. At a time when legal education is, itself, in a difficult fiscal situation, it is extremely important to realize that $1,000,000 of annual federal support for this program generates as much as $3,000,000 in cash and services annually from the law schools. And, it is unlikely that these funds will continue to be forthcoming without the catalyst provided by the Legal Training for the Disadvantaged Program through CLEO.

Also, the ABA has for years been a principal contributor to the program in its dual capacity as one of CLEO's sponsoring organizations and administrative conduit for the funding from the federal government. The ABA contributes annually some $40,000 to the program's operation which rose to $62,000 in FY 1982 to address unanticipated financial obligations unmet by any other funding source. Additionally, CLEO has received funding and in-kind support from the Law School Admission Council (LSAC) to cover administrative costs of the program.

The financial component of the program is provided by way of annual fellowships. The provision of the stipend is contingent upon the satisfaction of several conditions: full-time enrollment at an ABA-accredited law school in the fall term immediately following participation in a Summer Institute, and the maintenance of "good standing" status throughout the duration of the grant. For the 1985 fiscal year, almost $1,000,000 will be provided by CLEO to disadvantaged students enrolled in law schools.

With the full cost for a student attending most law schools being over $10,000, the CLEO stipend, which was increased in 1985 from $1,000 to $1,750 and $1,600 for first year students and upper classes respectively, is hardly adequate and is well below the yearly awards available from other graduate programs funded under Title IX.

The stipends, while inadequate, do provide a minimum of support for the needy students which the program services. Yet, even these amounts cannot be sustained in future fiscal years without additional appropriation. Other federally-funded graduate and professional programs, e.g., GPOP, Public Service and Mining Fellowships, have provided stipend assistance of approximately $6,000 per year and some have had institutional support components as well. This disparity in funding levels for students funded through similar federal programs under the same legislation has substantially hampered CLEO's ability to recruit students who would otherwise like to pursue a legal education. It was to correct this disparity in assistance, coupled with the program's impressive record of achievement, which encouraged Congress in 1980 to amend the Legal Training for the Disadvantaged Program legislation to provide new appropriation ceilings under the reauthorized Higher Education Act of 1965, as Amended.

The Program is cost-effective. While many programs have suffered substantial cost increases over the years, CLEO has been a rare exception. In the last eight (8) years, the program has continued to service successfully its disadvantaged student population with one modest increase in cost to the federal government. Judicious cost-saving measures have been implemented over the past several years with an eye toward fiscal austerity, including executive staff salary freezes and significant reduction in program staff; once staffed by eleven employees, the program now operates with a staff of seven. A careful review of the program's budget already reveals a "bare-bones" operation.

The federal government has made a major commitment in the last decade to increasing educational opportunities for the poor and disadvantaged groups within society. This is an important commitment not only in terms of fairness, but also in terms of wise allocation of resources. Compared to many federal support programs, CLEO is impressive because the payoff is concrete, clear and quick. The modest federal support is matched several times by the substantial voluntary contributions of the law school community and is repaid to the government many times over in higher taxes from these individuals and in their service to the society.

Observing the demonstrated success of CLEO participants and the continued support and cooperation of the nation's law schools, we request that you reauthorize the Legal Training for the Disadvantaged Program at the previously authorized levels for the next five years: $5 million for FY 1986; $5 million for FY 1987; $7.5 million for fiscal years 1988 and 1989 and $10 million for fiscal year 1990. This amount would permit CLEO to immediately make student awards of approximately $6,000, which is in line with the grants being given by other Title IX programs, and would allow in future years for the growth in the number of students serviced, as well as, the kinds of services, e.g., retention, that the program could offer.

Thank you for your time and consideration.

CLEO PARTICIPANT DATA REPORT
March, 1984

1. Number of student participants in CLEO since its inception:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
161	448	212	221	217	233	225	251	220	221	217	224	207	219	217	230	3723

2. Number of students successfully completing the CLEO summer institute program:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
151	444	197	210	213	229	225	244	216	207	213	222	203	211	207	223	3615

3. Number of summer institute graduates entering a law school:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
131	400	191	207	210	218	219	234	205	197	203	214	187	198	189	214	3417

4. Number of students who have graduated from law school:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
82	294	132	136	144	158	163	153	154	127	121	167	120	NA	NA	NA	1951

5. Number of law school graduates who have passed a bar examination:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
68	189	90	63	63	66	87	49	61	36	14	3	NA	NA	NA	NA	789

6. Number of law school graduates who have failed the bar examination:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
7	25	18	4	5	10	6	12	1	0	0	0	NA	NA	NA	NA	84

7. Number of law school graduates who never sat for a bar examination:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1578	1979	1980	1981	1982	1983	TOTAL
0	4	0	1	0	0	3	0	2	0	0	0	NA	NA	NA	NA	10

NOTE: Bar data information is grossly understated. Information is not generally known by the law schools and can only be ascertained with accuracy if it is known in which of the fifty jurisdictions an individual sat for the bar examination.

8. Number of law school graduates for whom CLEO has no bar data:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
6	71	31	69	80	80	72	92	90	83	110	164	120	NA	NA	NA	1068

9. Number of male students in law school receiving CLEO stipends:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
-	-	-	-	-	-	-	-	-	-	1	2	9	86	67	114	279

10. Number of female students in law school receiving CLEO stipends:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
-	-	-	-	-	-	-	-	-	-	-	-	7	69	88	83	257

11. Total students enrolled in a law school presently receiving CLEO stipends:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
-	-	-	-	-	-	-	-	-	-	1	2	16	155	155	207	536

12. Ethnic breakdown of students presently receiving CLEO stipends - Fall, 1983:

	1978	1979	1980	1981	1982	1983	TOTAL
American Indian				2	1	3	6
American Indian/Black					1		1
Appalachian				1	1		2
Asian American			1	4	5	3	13
Black	1		7	94	87	130	319
Black/Hispanic				1			1
Caucasian				5	5	6	16
Chicano		2	6	35	30	39	112
Cuban				1	1	4	6
Filipino						1	1
East Indian						1	1
Hawaiian					1		1
Hispanic				2	7	5	15
Hispanic/Indian				1			1
Puerto Rican			2	8	14	14	38
Vietnamese					1		1
Unknown				1	1	1	3
TOTAL	1	2	16	155	155	207	536

13. Number of students enrolled in a law school not presently receiving CLEO stipends:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
-	-	-	-	-	-	-	-	-	-	-	1	3	2	9	6	21

14. Total number of students enrolled in a law school:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
-	-	-	-	-	-	-	-	-	-	1	3	19	157	164	213	557

15. Number of students auditing the CLEO summer institute program:

1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	TOTAL
0	1	6	2	1	16	23	5	9	11	10	6	20	6	6	15	138

THE UNIVERSITY OF KANSAS

Department of Political Science
504 Blake Hall, Lawrence, Kansas 66045-2157
(913) 864-3523

Edwin O. Stene Graduate Program in Public Administration
(913) 864-3527

June 5, 1985

The Honorable William D. Ford, Chairman
Subcommittee on Post Secondary Education
Committee on Education and Labor
U.S. House of Representatives
Washington, D.C. 20515

Attention: Dr. Thomas Wolanin, Staff Director

Dear Congressman Ford,

I am writing in support of the Title IX Public Service Education Fellowships. As Director of the Graduate Program in Public Administration at the University of Kansas . I've seen the dramatic impact the Title IX Fellowships have had on recruitment of minorities and women for public management careers.

The Stene Graduate Program provides professional graduate education to prepare persons for leadership and management careers mainly in local government...although our graduates hold positions at all levels of government. (As a matter of fact, one alumnus is currently Sergeant-at-Arms, U.S. Senate: The Honorable Ernest Garcia.)

In the nine years I've been here, the profession has changed from an exclusively white male domain to a more balanced representation of American society. The enclosed photocopy of a 1964/65 brochure demonstrates the former profile.

Since the Title IX Fellowships have been available, we've been able to recruit minorities and women into the field in greater and greater numbers until this year when the fulltime class is roughly one-third white male, one-third white female and one-third minorities.

Main Campus, Lawrence
College of Health Sciences and Hospital, Kansas City and Wichita

TWENTY YEAR HISTORY

	1965	1970	1975	1980	1985
White Males	100%	99%	91%	65%	38%
White Females	-	1%	6%	29%	31%
Minorities	-	-	3%	6%	31%

FIVE YEAR HISTORY

	1981	1982	1983	1984	1985
White Males	73%	80%	42%	62%	38%
White Females	27%	20%	32%	24%	31%
Minorities	-	-	26%	14%	31%

More impressive than the recruitment figures though, are the career successes of recent minority and female graduates:

Angie Brown (white female) - Management Staff, Knoxville, Tennessee Metropolitan Planning Council

Candy Cannon (white female) - Administrative Assistant with the City of Ft. Scott, Kansas

Chris Dudgeon (white female) - Legal Assistant, Village of Lincolnshire, Illinois

Joyce Hammond (black female) - State of Kansas Governor's Fellow and alternate candidate for Presidential Management Internship

Ardenia Holland (black female) - Management Intern, City of Ft. Worth, Texas

Ruby DePriest Jones (black female) - State of Kansas Governor's Fellow

Carol King (white female) - Management Intern, City of Emporia, Kansas

Jody McAfee (white female) - City Manager's Office, Ft. Collins, Colo.

LaVerne Mitchell (black female) - Management Intern, City of Ft. Worth, Texas

Kise Randall (white female) - Management Intern, City of Lawrence, Kansas

Edgar Thornton (black male) - Management Intern, International City Management Association, Washington, D.C.

Isaac Turner (black male) - Management and Budget Analyst, City of Dallas, Texas

Jani Sepanik Vandemeer (white female) - Management, Grand Rapids Police Department

Jane Vallese (white female) - Budget Analyst, City of San Antonio, Texas

Liz Wilbur (white female) - Personnel Manager, City of Liberal, Kansas

It has been our experience at the University of Kansas that when Title IX Fellowships are available, we can recruit minorities and women to public service education; and the entry of qualified minorities and women into this traditionally under-represented field is having a marked effect on public management.

Sincerely,

John Nalbandian

John Nalbandian
Chairman, Department of Public Administration
Director, Edwin O. Stene Graduate Program
UNIVERSITY OF KANSAS

JN:MS

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Office of the Dean
Graduate School of Public Affairs, DP-30

June 12, 1985

The Honorable William D. Ford, Chairman
Subcommittee on Post Secondary Education
Committee on Education and Labor
U.S. House of Representatives
Washington, DC 20515

Attention: Dr. Thomas Wolanin, Staff Director

I am writing to urge your support for reauthorization of the Title IX Public Service Education Fellowships. Since 1975 these fellowships have been critical to our School's efforts in preparing for leadership and management careers at all levels of government. Of the 54 students who have been awarded Title IX Fellowships, most are now holding positions of major responsibility in government (see Placement list attached).

Title IX Fellowships have been especially important in the recruitment and preparation of minorities and women for leadership and management careers. Of the 54 students awarded Title IX Fellowships, 28 (52%) have been women and 18 (33 1/3%) have been minorities.

I hope your subcommittee will act favorably on the reauthorization of these critical fellowships.

Sincerely,

Hubert G. Locke
Dean

HGL:tb
Attachment

M266 Smith / Telephone: (206) 543-4900

Name	Year(s) of Award	Graduation Date	Internship
Cliff Thompson	1982-83	Fellowship Vacated	
Kate Williams	1982-84	June 1984	California Legislature Legislative Analyst
Joe Kadushin	1983-85	June 1985	Office of Inspector General, Veteran's Administration
Mary Louise McClintock	1983-85	June 1985	Office of Housing Policy, City of Portland, OR
Susan Nakagawa	1983-85	June 1985	Citizens Education Center Northwest; Congressman Rod Chandler's Office, Washington, DC
Eric Sonett	1984-85		
Robert Wright	1984-85		

PLACEMENT

Zelda Foxall	Researcher, Washington State Human Rights Commission, Seattle; Office of Civil Rights, U.S. Dept. of Education
Brian Magee	Research Analyst, World Bank, Washington, DC; EPA, Washington, DC
Barbara Hadley	Planner, Seattle Police Department; Budget Analyst, King County
Paul Tanaka	Budget Analyst, King County, Seattle, WA; Deputy Director, Dept. of Public Works, King County
Thomas Trompeter	Consultant, Evaluation Study, Dept. of Health, Education and Welfare, Region X, Seattle, WA
Thomas Vassar	President, Seattle School Board
James Voytko	PhD candidate, The Kennedy School of Government, Harvard University
Noelia Baldazo	Speical Assistant to the Governor, State of Idaho, Boise, Idaho

Paul Dennett	Office of Education, Dept. of Health, Education, Welfare, Washington, DC (PMI); Special Asst. to Asst. Secy. for Management and Budget, DHHS, Washington, DC
Joanne Asaba (nee Fujita)	Program Analyst, Environmental Protection Agency, Seattle, WA (PMI); Assistant to the Director, Dept. of Human Resources, King County
Edna Jackson	---
John Mares	Personnel Specialist, METRO, Seattle, WA; Department of Community Development, City of Seattle
Adela Backiel	U.S. Forest Service, Washington, DC; Congressional Research Service, Library of Congress
Nora Johnson	Resource Planner, King County Government; Assistant Project Manager, North Fork Snoqualmie Project, Bellevue Public Works Dept.
Michael Knoll	Administrative Assitant, Office of Management and Budget, City of Seattle; Energy Program Coordinator, Washington State Energy Office
Linda Steinmann	Staff Member, Senate Energy and Utilities Committee, State of Washington; Energy Program Coordinator, Washington State Energy Office
Raymond Tom	PMI, Dept. of the Air Force, Hawaii
Kim Nicholson	Assistant Vice President, The Providence Foundation of Seattle; Proctor and Gamble, Cincinnati, Ohio
Anthony Rainey	PMI, Small Business Administration, Region X
Jane Donheffner	PMI, Program Development, King County; Assistant Manager, E-911 Program, King County
Geraldine Lim	Surface Water Management, King County; Office of Finance, King County
Steve McLellan	Staff Attorney, Joint Select Committee on Telecommunications, Washington State Senate
Jeanette Samek	Planning Dept., City of Renton
Kathryn Shane	Administrative Assistant, City of Kirkland, WA
Laurie Armstrong	Private Industry Council Program Evaluator; BCCC, a public/private sector consulting firm

Bertha Fields	Fort Steilacoom Community College, Part-time Faculty Washington State Department of Community Development
Nick Langton	Episcopal Church, Sudan, Administrative Officer Refugee Program
Gordon Pullar	President, Kodiak Area Native Association, Kodiak Alaska
Pam Sempel	Pacific Medial Center Personnel Office
Anne Smith	Group Health Cooperative, Ass't. to V.P. for Operations
Bill Gaum	---
Yona Makowsky	Government Relations, Washington State Dept. of Socia and Health Services
Kate Williams	Program Analyst, California Legislative Analyst' Office

The Graduate School of Public Affairs is proud of the record of its previous Public Service Fellows. The proven track record for recruitment and placement of our Fellows provides a strong foundation upon which we can continue to build our Title IX program.

The University of Michigan
INSTITUTE OF PUBLIC POLICY STUDIES
1516 Rackham Building Ann Arbor, Michigan 48109
Telephone (313) 764-3490

IPPS
Paul N. Courant
Director

30 May 1985

The Honorable William D. Ford, Chairman
Subcommittee on Post Secondary Education
Committee on Education and Labor
U.S. House of Representatives
Washington, DC 20515

Attention: Dr. Thomas Wolanin, Staff Director

Dear Mr. Ford:

I am writing regarding the re-authorization of Public Service Education Fellowships under the Higher Education Act of 1965. Title IX of the Higher Education Act provides fellowships for students who prepare for careers in the public service by studying at institutions such as ours.

Our experience has shown that students often decide crucial questions about their graduate careers largely according to the likely costs and career benefits of one program compared to another. We have in the past lost several excellent students because they felt the financial risks were too high in entering a public service program compared to more traditional graduate or professional alternatives. When students are uncertain about entering the public service, they tend to allow money to play too large a role in their thinking. The Public Service Fellowships are large enough to reduce the student's financial commitment, and have served to overcome fears about the desirability of careers in the public service. In a very real sense, then, these fellowships have brought many outstanding people into government. They have also enabled segments of the population who have been under-represented in the public service, such as racial minorities and women, to increase their numbers.

At a time when the size and scope of government is a matter of public debate, it is essential that we be able to bring outstanding young people into the public service. The kind of training that institutions like ours provide serves all of us well -- graduates of our program (and similar ones around the country) are able to balance priorities and make tradeoffs. As we look for ways to cut the deficit, and to implement new budget policies with minimum disruption to the functioning of the public sector, these are the kinds of civil servants we need. Without the Public Service Fellowships for that we will have fewer of them.

The fellowship program has been in operation long enough for a number of the students who benefited from it to have graduated. We have followed their progress and find that most of them are indeed in challenging and responsible positions in the public sector, and have not accepted the possibly more lucrative offers available to them in business. Out of only 30 Public Service fellowships we can list as examples the following positions:

Social Science Analyst
Division of Housing Research
Dept. Housing & Urban Development
Washington, DC

Program Analyst
Office of Research and
Program Development
Massachusetts Dept. of
Manpower Development
Boston, MA

Budget Analyst
Office of the Assistant Secretary
for Planning & Budget
Dept. of Health and Human
Services
Washington, DC

Policy Research Associate
Office of the Assistant Secretary
for Planning & Evaluation
Office of Health Policy
U.S. Dept. of Health and
Human Services
Washington, DC

Special Assistant to the Director
Michigan Dept. of Commerce
Lansing, MI

Policy and Systems Analyst
Department of Energy
Washington, DC

Assistant to the City Manager
Grand Rapids, MI

Policy Analyst
Office for the Aging
State of Pennsylvania
Harrisburg, PA

Fiscal Analyst
Legislative Fiscal Bureau
State of Wisconsin
Madison, WI

Assistant Analyst
Congressional Budget Office
Washington, DC

Management Trainee
City Management Intern Program
City of Dallas
Dallas, TX

Staff Investigator
Senate Subcommittee on Oversight
of Government Management
Committee on Governmental Affairs
U.S. Senate

A number of public service fellowship recipients entered the public sector upon graduation through the Presidential Management Internship program.

The honorable William D. Ford
Page Three
30 May 1985

We feel that the record demonstrates the program has been fulfilling its objectives, and that the Public Service Education funds represent a relatively small investment that yields extremely high returns. We very much hope that you will share our view.

Sincerely,

Paul N. Courant
Director

PNC:klh
cc: Ed Clynch

[Additional letters expressing similar support for the Public Service Fellowship Program were submitted by the following program administrators and recipients.]

Public Service Fellowship Program

LETTERS

Administrators

Baber, Walter F., Ph.D.
M.P.A. Director
Texas Tech University

Berry, Brian J. L.
Dean and University Professor
School of Urban and Public Affairs
Carnegie-Mellon University

Bowker, Lee H.
Dean of the Graduate School and Research
Indiana University of Pennsylvania

Caprio, Raphael
Director, Institute of Public Administration
State University of New Jersey Rutgers

Caraley, Demetrios
Director and Professor of Political Science
Columbia University, City of New York

Clayton, Ross
Dean, School of Public Administration
University of Southern California University Park

Clynch, Ed
Chair, National Assc. of Schools and Public Affairs
Mississippi State University

Cook, Ann Homer
Assistant Sec. of State Administration
State of Mississippi

Curvin, Robert
Dean, Graduate School of Management and Urban Professions
New School for Social Research

Fearon, David S.
Visiting Associate Professor
Department of Administrative Science
Colby College

Frank, Garry L., Ph.D.
MPA Program Director
Drake University

Freeman, Patricia K.
Coordinator, Masters Program in Public Administration
University of Tennessee Knoxville

Garvin, Mildred
Director, Field Services
Graduate Program in Public Administration
State University of New Jersey Rutgers

Haley, Leon L.
Acting Dean, Graduate School of Public and Intern'l Affairs
University of Pittsburgh

Hansell, William H. Jr.
Executive Director
ICMA

Henry, Nicholas L.
Dean, College of Public Programs
Arizona State University

Hines, Samuel M. Jr.
Chairman, Department of Political Science
College of Charleston

Jennings, Edward T. Jr.
Chair, Department of Public Administration
University of Missouri-Columbia

Laudicina, Eleanor V., Ph.D.
Kean College of New Jersey

Lerner, Allan
Director, Graduate Program in Public Administration
University of Illinois at Chicago

Lynn, Naomi B.
Dean, College of Public and Urban Affairs
Georgia State University

Moeller, William F.
Director, Florida Center for
Public Management

Morris, Susanne R.
Administrator, Public Policy and
Administration Program
Michigan State University

Mosley, Calvin N. and
England, Mary Jane, M.D.
Assistant Dean, Master in Public
Administration Program
Harvard University

Murray, Sylvester
City Manager
City of Cincinnati, Ohio

Newell, Charldean
Special Assistant to the Chancellor
and Professor of Public Administration
North Texas State University

Pak, Chong M.
Professor and Chairman, Department
of Public Administration
Virginia Commonwealth University

Raffel, Jeffrey A.
Director, MPA Program
University of Delaware

Rich, Wilbur C.
Director, MPA Program
Wayne State University

Roeder , Phillip W.
Director
School of Public Administration
University of Kentucky

Sherman, Max
Dean
University of Texas at Austin

Sherwood, Frank P.
Chair, Dept. of Public Administration
Florida State University

Sindler, Allan P.
Dean, Graduate School of Public
Policy
University of California, Berkeley

Smith, Dennis C.
Director, Program in Public Administration
New York University

Sulzner, George T.
Professor, Dept. of Political
Science
University of Massachusetts
at Amherst

Vocino, Thomas
Professor and Head, School of
Sciences
Department of Government
Auburn University at Montgomery

Whitaker, Gordon P.
Director, MPA Program
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REAUTHORIZATION OF THE HIGHER EDUCATION ACT

Title VII (Construction and Renovation of Academic Facilities); Title IX (Graduate Education); Overview

Volume 9

TUESDAY, OCTOBER 1, 1985

House of Representatives,
Subcommittee on Postsecondary Education,
Committee on Education and Labor,
Washington, DC.

The subcommittee met, pursuant to call, at 11:20 a.m., in room 2261, Rayburn House Office Building, Hon. William D. Ford (chairman of the subcommittee) presiding.

Members present: Representatives Ford, Hayes, Bruce, Dymally, Penny, Gunderson, McKernan, and Petri.

Staff present: Thomas R. Wolanin, staff director; Maryln L. McAdam, legislative associate; Kristin Gilbert, clerk/legislative associate; and Richard D. DiEugenio, minority senior legislative associate, and Rose DiNapoli, minority legislative associate.

Mr. Ford. I am pleased to call to order this hearing of the Subcommittee on Postsecondary Education. Today we are continuing our hearings on the reauthorization of the Higher Education Act.

This is our 23d hearing here in Washington, and we have also had 12 field hearings around the country. I think that's a total of 35, and we have something in the magnitude of 115 hours of formal testimony at this point, all of which has been avidly read and digested by all of the Members of Congress.

Frankly, I can think of no better way to conclude our reauthorization hearings than to hear from today's distinguished witness, Dr. David Gardner, president of the University of California system. Dr. Gardner chaired the National Commission on Excellence in Education, best known because of the report that the Commission wrote called A Nation at Risk, which provided national visibility and added impetus to the movement for educational reform in this country.

I would like to say parenthetically that even though your report, like the Bible, during my lifetime is quoted by very many people for different reasons, it frequently leaves me with the impression that they haven't read it very carefully. It has been quoted in ways that have pleased me and ways that have displeased me, but I found it very fine. I want you to know that I have been distributing it enthusiastically with the admonition, please don't read what the newspapers said about it, read what it says. I am perfectly satisfied, even though we have a much different political background, to stand on that, because it obviously was the work guided by a professional with professional input and, indeed, it did elevate, even with those who used it to be the most critical of education, the issue of excellence and the basic quality of education in this country more dramatically than anything since sputnik.

Sputnik, all of us recall, was a historical high water mark of getting the public's attention. I think, by and large, the public's attention having been raised, has produced positive results and support for education that wasn't there before.

I also had the pleasure of serving with Dr. Gardner on the National Commission on Student Financial Assistance which examined student financial aid policy in great depth and reaffirmed the national commitment to equal educational opportunity. Dr. Gardner, we have had many people, as we might have expected, quote parts of that report that you participated in, back to this committee during the reauthorization process.

Dr. Gardner is one of the most thoughtful, balanced and intelligent leaders in American higher education. I am looking forward to his testimony on the reauthorization of the Higher Education Act. If you will come forward, the gentleman from California has the privilege of a formal introduction of the other gentleman now of California.

Mr. **Dymally**. Thank you very much, Mr. Chairman.

I have many reasons to be very generous in my introduction of Dr. Gardner. He supports with abiding interest an institution in my district. It is one which I had the pleasure of helping to create by coauthoring its authorizing legislation for the board of regents many years ago when I served in the senate. So we welcome him here today. My friends in the legislature keep saying very nice things about him and I am very pleased that he has joined us today for this very important piece of testimony.

Mr. **Ford**. Thank you.

Mr. McKernan?

Mr. **McKernan**. I have no comments, Mr. Chairman.

Mr. **Ford**. Mr. Hayes?

Mr. **Hayes**. No comment.

Mr. **Ford**. Mr. Petri?

Mr. **Petri**. No.

Mr. **Ford**. Dr. Gardner, if you have a prepared statement it will be inserted in full at this point in the record and then you can add to it, supplement it, or editorialize on it in any fashion that you deem most valuable to the committee.

STATEMENT OF DAVID PIERPONT GARDNER, PRESIDENT, UNIVERSITY OF CALIFORNIA

Mr. **Gardner**. Mr. Chairman, may I say how much I appreciate your kind words and especially your expressions of regard for the work of the National Commission, especially valued coming from a Member of Congress whose views and support for education and opportunity for young people in this country, of course, is known nationally. I appreciate that very much.

I also wish to express my thanks to Congressman Dymally, a former regent of the University of California, during his years in California, for his very warm welcome.

It is a very great pleasure to be here today. I hope that the work of your committee will be advanced by my testimony. I do have a more complete statement for the record, Mr. Chairman and members of the committee, and a very brief summary of some of the more salient points. With your permission, perhaps I could move through that quickly and then respond to questions that you have.

This reauthorization process is an important procedure that encourages both Federal Government and higher education to evaluate and improve the Higher Education Act. To strengthen the act, the various higher education associations have carefully reviewed existing programs. Under the umbrella of the American Council on Education, some changes have been proposed in the act. The University of California essentially supports the ACE proposal.

When considering the array of programs contained in the act, however, I believe there are three areas of critical importance that deserve emphasis. First, there's a need to mount programs that will assure the Nation of a continuing flow of educated and trained people capable of meeting the country's strategic needs.

Second, there's a need to replace the enormous backlog of obsolete scientific equipment and related facilities that frustrates our efforts to teach young people about science and retain bright, young scientists on our faculty.

Third, there's a need to design a more efficient and effective national network for information exchange among our universities, private industry, and the general public.

Detailed remarks appear in my written testimony but I wish to use this opportunity briefly to comment on these three issues. First, let me talk about talent and expertise. Universities are the source not only of new ideas but of educated and well-trained people; at least we try. For more than three decades, the Federal Government has recognized that it is in the national interest to encourage the development and talent and expertise especially by helping to support financially needy students and providing funds for the Nation's basic research efforts. The Nation has been handsomely rewarded for this investment.

Yet the partnership between universities and the Federal Government in education is not what it might be. For example, despite the increasng cost of education, and especially of graduate education, the Federal Government shifted its support for such students from grants to loans.

The higher education community is united in its concern with this trend. As our graduate and undergraduate students are increasingly burdened by large cumulative loans, I am not unaware of the complexity of dealing with this issue, having served with the chairman on another national commission, as he mentioned.

At the University of California, for example, the size of the average loan has more than doubled in the last 6 years. Furthermore, this increase in the debt burden has been disproportionately assumed by our lowest income and minority students. This is a problem not only for individual students, but also for the Nation, because student debt adversely influences choices and careers.

The prospect of being burdened by these debts discourages students from entering college, from completing a graduate training, and/or from entering fields of study that are of crucial importance to our Nation's well-being and responsive to their own career aspirations and personal hopes for the future. For example, it is one thing to be borrowing $5,000 or $10,000 if one is intending to take an MBA. It is quite another thing to be borrowing $5,000 or $10,000 if one intends to go into teaching elementary grades or into social work.

What is needed to alleviate this national problem are carefully crafted and adequately funded Federal initiatives that encourage young people to continue their education and meet the Nation's strategic needs.

This is true most obviously in the scientific, engineering, and technological disciplines but also in the social and behavioral sciences, and humanities and fine arts, and in such essential fields as foreign languages, area studies, and teaching. Even modest support through the Higher Education Act of these programs aimed at quality rather than at numbers could move us toward these worthy goals.

My second area of concern is scientific equipment and instrumentation. As centers of basic research, our Nation's universities have played a critical role in helping to create the knowledge that is the technological foundation of our economy, our security, and our way of life.

Universities account for more than half of the Nation's basic research. Yet, one-third of higher education's physical plant was built before 1950—35 years ago. And today, university research equipment is estimated to be twice the median age of industries. One-fourth of all research equipment in the leading universities is, for all practical purposes, obsolete.

Inventories at the University of California alone, all nine campuses, indicate that approximately $520 million is needed to replace obsolete equipment in addition to $4 billion for the construction and renovation of our facilities. Now the University of California's nine campuses receive roughly 11 percent of the basic research funded by the Federal Government in American universities. So if you take the scale of our enterprise, you might extrapolate from there and gain some sense of the magnitude of the problem.

As you know, the major agencies of the Federal Government that sponsor university research have accepted partial responsibility for addressing the instrumentation problem.

In recent years, for example, the National Science Foundation, the Department of Defense and the Department of Energy have each provided for instrumentation in their research programs. Congress is also considering legislation that provides tax credits for research and for private research equipment donations to universities.

These kind and new proposals will help. But they touch the problem only at the margins. The facilities and instrumentation problem is measured in the billions of dollars. The private sector, States, and the universities themselves must help find a solution to this problem. But the Federal role here is particularly critical because the task is both national in scope and central to this country's long-term economic, scientific, and technological well-being.

My third concern has to do with information technologies. Our Nation is experiencing a revolution in information technologies comparable to the invention of the printing press. The speed and ease with which people may now create, replicate and share information is truly astonishing. And already these new information technologies play a significant role in our country's cooperative and competitive activities with other countries of the world.

We face a real challenge in providing for the preservation and maintenance of traditional collections of information while summoning the foresight to develop and benefit from more advanced information devices.

These new information technologies include video disks, computers, video terminals, microwave, satellites, and cable, among others.

We need to employ these technologies more effectively in order to share information and transfer the results of basic research not only within the academic community itself but between that community and the one on the one hand, and the marketplace and the rest of society on the other. Working with higher education, the Federal Government can provide the leadership necessary to apply these information technologies on a national scale.

We might ultimately envision a totally new kind of national library. This library would be accessible to the average citizen or business person by phone or home computer—one that incorporates traditional information sources as well as different forms like data bases.

It would be appropriate for the Federal Government to initiate and support such efforts as they develop, for they will involve people and organizations without regard to geographical or domestic governmental boundaries.

Chairman Ford, members of the subcommittee, it is appropriate and timely for the Federal Government to take initiatives in the three areas I have mentioned in order to insure a continuing flow of well educated and well trained young people, to invigorate the Nation's research effort and to increase public access to the ideas and knowledge produced in our laboratories and the intellectual riches found in our libraries.

Such initiatives would help to remind the country that the Federal Government remains capable of seizing promising opportunities and making progress that both benefits the Nation and helps to sustain the vitality and usefulness of our colleges and universities, and to do so when confronted elsewhere with major fiscal problems and conflicting and competing priorities.

I would be very pleased to respond to any comments, or questions, or criticisms, or observations that you may have.

[The prepared statement of David Pierpont Gardner follows:]

PREPARED STATEMENT OF DAVID PIERPONT GARDNER, PRESIDENT, UNIVERSITY OF CALIFORNIA

Chairman Ford, members of the Subcommittee, I am David Gardner, President of the University of California. Thank you for inviting me to testify before you today on the reauthorization of the Higher Education Act.

The Higher Education Act represents the Federal Government's fundamental commitment to the idea that our nation's citizens must be well-educated and well-trained to meet the challenges of an increasingly complex and competitive world. Since its inception, the Act has assisted higher education in its goal of educating our young people by providing financial assistance for students, campus libraries, teacher training programs, and research facilities, to name only a few areas of federal support. The Higher Education Act, however, is more than just the sum of its various provisions. This legislation is symbolic of the Federal Government's necessary and unique involvement in the life and future of our nation's colleges and universities.

Those of us who served on the National Commission on Excellence in Education believed it was appropriate to distinguish the various responsibilities of the Federal Government, the states, and local jurisdictions in the effort to improve schooling in America. The Commission members were a diverse group of individuals drawn from education, government, the corporate and foundation worlds, and private life. But they were unanimous in supporting the idea that most decisions about education should be made by state and local governments and school boards. That is the nature of our highly decentralized school system, in which 92 cents of every dollar spent on education come from non-federal sources.

At the same time, however, the Commission also believed there are broad responsibilities in education that the Federal Government must assume because of their scope and national consequence. As discussed in our report, "A Nation at Risk," these consist of such functions as, for example, protecting constitutional and civil rights for students and school personnel; supporting teacher training in areas of critical shortage or key national needs; collecting and disseminating data, statistics, and information about education generally; providing student financial assistance; meeting the needs of special students, such as gifted and the handicapped; supporting research conducted at universities and colleges; and providing assistance for graduate education and training. In the most general terms, we concluded, the Federal Government has "the primary responsibility to identify the national interest in education" and to provide national leadership in that domain. I believe that these broad responsibilities are important for you to consider as you discuss reauthorization of the Higher Education Act.

The Act is symbolic of a government-university partnership in education, and especially in research, that helped our country prevail in World War II and that has enabled us to maintain international economic, military, agricultural, and technical position in the decades since. Whatever our past successes, however, this partnership must be reaffirmed if our place is to be secured in the future. It is demonstrably in the national interest that we do so. Thus, this reauthorization process is an important procedure that encourages both the Federal Government and the higher education community to change with the times by improving or replacing those provisions of the Higher Education Act that require alteration, all in the best interests of the nation.

To strengthen the Act, the various higher education associations have carefully reviewed the existing programs, and under the umbrella of the American Council on Education, have proposed some changes in the Act. The University of California essentially supports the ACE proposal.

When considering the array of programs contained in the Act and in the proposal, however, I believe there are three specific areas of crucial importance to higher education that deserve emphasis: 1) the need to mount programs that will assure the nation of a continuing flow of educated and trained people capable of meeting the country's strategic needs; 2) the need to replace the enormous backlog of obsolete scientific equipment and related facilities that presently frustrates efforts to teach young people about science and to retrain bright young scientists on our faculties; and 3) the need to design a more efficient and effective national network for information exchange among our universities, private industry, and the general public.

DEVELOPMENT OF TALENT AND EXPERTISE

Universities are the source not only of new ideas but of educated and well-trained people. For more than three decades, the Federal Government has recognized that it is in the national interest to encourage the development of talent and expertise, especially by helping to support financially needy students and by providing funds for the nation's basic research efforts. Yet the partnership between universities and the Federal Government in this area is not what it might be. For example, despite the increasing cost of graduate education, the number of federally-funded graduate fellowships fell 83 percent from 1969 to 1983. This is a non-partisan observation. As a substitute for these awards, the proportion of the Federal Government's assistance for graduate and professional education provided as loans rose from 26 percent in 1976 to 73 percent in 1984. This is a disturbing trend. The higher education community is a vast and diverse mosaic of public and private institutions, and differences exist over what formula comprises the ideal mix of student aid. But this community is united in its apprehension that our graduate and undergraduate students are increasingly burdened by large cumulative loans.

We have watched this trend with concern at the University of California, particularly as it affects minority graduate students and those students from lower-income families. The growing student dependency on loans is suggested by our figures indicating that the average loan per borrower more than doubled at both the graduate and undergraduate levels between 1978-79 and 1984-85. This increase was due to the fact that during this period, the dollar value of Title IV grants at the University of California increased by only 1.8 percent, while Title IV loans grew by 60 percent. Thus, although the availability of federal student assistance increased, the growth resulted from an increase in the loan burdens students assumed, nor from an increase in grant support.

We are deeply troubled by data indicating that the increase in the debt burden has been disproportionately assumed by our lowest-income and our minority students. As family income decreases, the reliance on loans to cover educational and living expenses increases. Borrowing among University of California students from families with incomes of less than $18,000 increased 153 percent between 1979-80 and 1983-84, compared to an increase of only 11 percent among families with incomes over $30,000. Our data also reveal that at the graduate level, in both professional and academic programs, minority students borrowed on the average from 5 to 11 percent more fund than did non-minority students. The University of California makes every financial effort possible to ensure that all of our students complete their course of study. Yet we find that it is the lower-income and minority students—those who have the most to gain from an education to improve their social and economic standing in life—who are now the most financially burdened. This financial burden often keeps them from completing their education or from completing it in a timely way.

This is a problem not only for individual students, but also for the nation because student debt influences choices and careers. Many individuals in our society come from low-income families that lack experience with borrowing large sums and are hesitant to accumulate debt for seemingly intangible purposes, education being perceived by them as one such purpose. Those low-income students who are resolved to accept this burden often supplement these funds by relying on part-time work that greatly extends the time required to finish their degrees, particularly at the graduate level. Finally, when these students emerge from their course of study heavily in debt, many of them—especially minorities and women, who on average tend to work in lower paying jobs—find repaying their large debt exceedingly difficult. As a result, students may be discouraged from entering college, from completing graduate studies, and from entering fields of study at both the graduate and undergraduate level that are of crucial importance to our nation's well-being and responsive to their own career aspirations and personal hopes for the future because they fear they are mortgaging their future.

What we need is a carefully crafted and adequately funded Federal initiative to help create the financial incentives and means by which the nation's most promising young people can be encouraged to continue their education at the undergraduate level and, when it is appropriate, at the graduate and professional level as well. This is important not just for the sake of individual aspirations but for the sake of the nation's strategic needs and general well-being. It is true not only in the scientific, engineering, and technological disciplines, but also in the social and behavioral sciences, the humanities, the fine arts, and in such essential fields as foreign languages, area studies, and teaching as well. To achieve this purpose, the University of California supports ACE's suggested "National Interest Grants," (Title IX, Part D), which would award grants to graduate programs based on merit and national needs, and the proposal to replace the current language in Title IX, Part A, with institutional grants to encourage minority graduate participation. In addition, the University endorses the continuation of Title IX, Part C, which provides competitive awards to students through the National Graduate Fellows program, as well as the continuation of Title VI (International Education), which seeks to promote international cooperation and understanding. The Federal Government's support for international education would be particularly welcome at this time, as our nation's economic relations with other countries, especially those of the Pacific Rim, grown ever more significant. In addition to the current provisions of Title VI that provide for foreign language and area studies, this section could be expanded to promote the study of language, culture, and trade. Even modest support—aimed at quality rather than at numbers—of these programs, including undergraduate programs, could move us toward the worthy goals of serving educational opportunity and the national interest.

SCIENTIFIC EQUIPMENT AND INSTRUMENTATION

As centers of basic research, our nation's universities have played a critical role in helping to create the knowledge that is the technological foundation of our economy, our security, and our way of life. Universities account for more than half of the nation's basic research, about $5 billion worth in 1983, as well as for some $2.5 billion in applied research and development. Yet one-third of higher education's physical plant was built before 1950, and university research equipment is at present estimated to be twice the median age of industry's. Twenty-five percent of all research equipment in the leading universities is, for all practical purposes, obsolete, while only 16 percent is estimated to be state-of-the-art. At the University of California, our inventories indicate that we need to spend $520 million to replace obsolete equipment in addition to $4 billion for the construction and renovation of our facilities.

As you know, the major agencies of the Federal Government that sponsor university research have accepted partial responsibility for addressing the instrumentation problem. In recent years, for example, the National Science Foundation, the Department of Defense, and the Department of Energy have each provided for instrumentation in their research programs. Congress also appropriated $31.9 million for an instrumentation program in the National Institutes of Health. We are also encouraged by other federal initiatives that seek to assist higher education in this important area. Congressman J.J. Pickle recently introduced legislation (H.R. 1188) that would make permanent the three-year research and experimentation tax credit established in 1981, and would add provisions that should stimulate corporate equipment donations to universities and colleges. The University of California also supports legislation sponsored by Congressman Don Fuqua, the University Research Facilities Revitalization Act (H.R. 2823), that would provide funds for research facilities construction sponsored by the various federal research agencies. In addition, for the first time in 14 years, Congress employed Title VII of the Higher Education Act to appropriate $28 million for facilities funding. Finally, the University of California strongly endorses the ACE recommendations of Title VII that, among other things, call for merit-based peer review for the distribution of funds, and an increase in the authorization level for this title from $200 million to $300 million.

These current and new proposals will help, but they touch the problem only at the margins. The facilities and instrumentation problem is measured in the billions of dollars, and thus these proposals should not be confused with the solution the country still desperately needs to discover. The private sector, the states, and the universities themselves must all make this a priority. The federal role is particularly critical because the task of refitting our nation's laboratories is both national in scope and central to the country's long-term economic, scientific and technological well-being. This effort should be undertaken promptly.

INFORMATION TECHNOLOGIES

Our nation is experiencing a revolution in information technologies comparable in its significance and its implications to the invention of the printing press. The speed and ease with which people may now create, replicate, and share information is truly astonishing, and already these new information capabilities play a significant role in our country's cooperative and competitive activities with other countries of the world. The challenge we face is providing for the preservation and maintenance of traditional sources of information, such as books, journals, and periodicals, while summoning the foresight to develop and benefit from more advanced information devices that include video discs, computers, micro-wave, video terminals, satellites, and cable among others. Furthermore, we need to employ these technologies more effectively in order to share information and transfer the results of basic research not only within the academic community itself, but between that community on the one hand, and the marketplace and the rest of society on the other.

We encourage federal legislation that would aid higher education's development of these new technologies. Chairman Ford, for example, first proposed in 1984 to replace an unused provision in Title II with a new program of College Library and Cooperation Grants. These grants will assist our libraries' use of computers, improve information sharing among institutions, and provide funds for promising demonstration projects.

Working with the higher education community, the Federal Government can provide the leadership necessary to apply these information technologies on a truly national scale. We might ultimately envision a totally new kind of national "library," accessible to the average citizen or business person by phone or home computer, one which incorporates traditional information sources as well as different forms like data bases. It would be appropriate for the Federal Government to initiate and support such efforts as they develop because they will quite naturally involve people and organizations without regard to geographical or domestic governmental boundaries.

CONCLUDING STATEMENT

It is appropriate and timely for the Federal Government to take initiatives in the three areas I have mentioned, in order to ensure the continuing flow of well-educated and well-trained young people, to invigorate the nation's research effort, and to increase public access to the ideas and knowledge produced in our laboratories and the intellectual riches found in our libraries. Such initiatives would help to remind the country that the Federal Government remains capable of seizing promising opportunities and making progress that both benefits the nation and helps sustain the vitality and usefulness of our colleges and universities, and to do so when confronted elsewhere with major fiscal problems and conflicting and competing priorities.

Mr. FORD. Thank you very much. We have anticipated you only slightly, Dr. Gardner. Counsel points out to me that in a working draft that we are working up for the committee, your suggestion on page 10, in the middle of the page, has been incorporated and it has been recommended by a number of groups, particularly the library groups. I can assure that it has had sympathetic considerations since it has been raised to us, not once, but several times.

I would just like to ask you one or two general questions. You started out in your statement by making reference to the historical partnership between the Federal Government and higher education. I think you are modest when you said that for the last 30 years we have had this—actually a fine Senator from the State of Vermont who really started it, was into it with a vengeance shortly after the Civil War, or the War Between the States, depending upon what part of the country you went to high school in. It was the beginning of the public involvement in a large way which really had the Federal Government prodding the States. I think it is fairly clear that it would have been a long time in coming for the States to have done what they did as a result of that in developing their own State college and university systems.

So it was really the Federal Government that moved the States into support of public education.

More recently, we have tended to respond—the GI bill, which put people like me through school—to circumstances that seem compelling at the moment, they had a lot of us coming home and they thought maybe it would be a good idea to put some of us in school instead of back in the job market. So in the Serviceman's Reajustment Act, there was something that came to be known as the GI bill.

I was greatly shocked, having participated in that throughout college, to discover after I came on this committee 21 years ago and started to read some history of our involvement with education, to find it wasn't an education bill at all, that it was just an afterthought in the Serviceman's Reajustment Act, that somebody said we will get rid of a lot of them by sending them to college. And it worked in that case better than anybody ever expected because they really were expecting it was kind of an alternative to other consequences of flooding the job market with large numbers of people.

Then sputnik went off and the American public reacted, as I suggested in my earlier comment, like they have to your report—there's something wrong here and we are falling behind, and we need a greater effort. That caused the politicians to wake up and the National Defense Education Act of 1958 came out of that. It was in the works—it had been suggested in one form or another for many years and the public wasn't ready for it. Then with the passage of the Higher Education Act in 1965, we embarked on another direction talking about choice.

This committee was urged in the very early part of this year to accept from a very high official in the Government the idea that the Federal Government has never had a policy of providing choice with respect to postsecondary education, that our obligation begins and ends with the responsibility to provide some access to some kind of education, but not necessarily access to any institution the student may wish to attend, or any institution that a student thinks is most appropriate to his or her educational goals.

I would like to have your reaction to that. In terms of your years as a professional, do you see that we really have trouble today understanding that access always went hand-in-glove with the concept of choice?

Mr. **Gardner.** Beginning with the Northwest Ordinance, 1787, the Federal Government has both evidenced and played a role in the development of education in this country, especially educational opportunity. And the great Morrell Act of 1862, which gave life to the land-grant institutions of this country, and enlarged their curriculum, invited into the colleges and universities of the country large parts of the population that had not seen that as either a possibility or an appropriate aspiration for them; the growth and development of the community colleges in the early part of this century. And as you point out, the GI bill after World War II, the NDEA, and then the Higher Education Act.

So I think it is not consistent with history to suggest that the Federal Government has either been indifferent, unaware of, or unresponsive to the need to afford opportunity educationally for the young people of this country to realize both their aspirations and expectations, and to develop their talents and abilities. That's the first thing I would like to say.

Then the "Nation at Risk" was a report addressed as much to the American people, as you know, Mr. Chairman, as to the Government. So it was written in everyday English, was kept brief, and it was as a result, widely publicized.

The proposition in the "Nation at Risk" was that if we were going to effect change in the schools, change in the schools would have to be effected by people who controlled them. And they were by and large controlled at the local level and at the State level, and not controlled, fortunately, by the Federal Government. Therefore, the impetus for this educational reform movement derived principally from efforts at the local and State levels encouraged by efforts at the Federal level and these various reports to which you made earlier reference.

Now the States, of course, have responded. Local school districts have responded. Individual schools have responded. We have witnessed in the last 2 years as much activity—and I indeed believe progress—and improvement in the schools as we have had since Sputnik. And it is continuing—whether it will or not, of course, is an open question.

Now, during this period of the last 2 years, there has been relatively few initiatives on the part of the Federal Government. And it may be just as well, because I think if there were a suggestion that the Federal Government was going to step in and solve the problem, I think the States would have been less responsive than they have been. But they have responded, and we are in a different situation today.

So I think, as I indicated to Congressman Hawkins and Senator Stafford's committee a few minutes ago, I think it is timely for the Federal Government now to assess the changes that have occurred in the schools, the progess that has been made, and discover where it can now come in, in a complementary and reinforcing way, to augment this effort, to help reinforce it, and to support it, with a set of initiatives of a kind fitted to the Federal role and suited to the remaining problems that we still need to address.

Now, that's a long way of coming to the question you asked me. I felt I needed to lay that basis for responding.

This country has been enormously benefited, in my personal view, by the presence of both privately supported and publicly and publicly assisted colleges and universities. And while it may be not unreasonable to suggest that the Government shouldn't pay for it twice, as I have heard it described, once in terms of taxes to support public institutions, and then twice in terms of financial aid for a student to attend a private university and, therefore, they shouldn't afford that level of choice—that's just one side of the coin. That personalizes the problem and individualizes it too much, in my view. That's one-half the coin.

The other side of that coin is, what kind of educational environment, what kind of students are enrolled that give life to that educational environment in any given institution. Therefore, it seems to me important for us to consider as we construct student financial aid programs, what it means for the educational circumstances is students in various kinds of colleges and universities in the country. I think it is unhealthy, for example, for the more expensive private universities to have only students who can afford to pay their tuitions to attend. And, of course, that's not the case, and it's not the case—it's a combination of those institutions own efforts to raise scholarship and fellowship funds, the efforts in some case of the States to provide financial assistance. And in the case of the Federal Government to have a policy that permits students to obtain financial aid whether they are attending public or private institutions.

I think it would be a great loss to the country if there were changes in the Federal Financial Aid Program, such that students availing themselves of this financial assistance had only the option of attending public institutions and were deprived of the opportunity to attend private, if they wished, and circumstances were such that they could do so. That's my own personal view.

Mr. **Ford**. Thank you very much.

Mr. McKernan.

Mr. **McKernan**. Thank you, Mr. Chairman.

President Gardner, I, first of all, have only been on this committee for 1 year, but I have heard nobody actually make the argument that you just made. There are a lot of versions of it but I can't believe that there is anybody in any position of responsibility who would actually say that none of our financial aid programs ought to be going toward private schools. I am sure there are some people who are saying that but there's really nobody on this committe who is saying it and very few, if any Members of Congress, who would actually take that extreme position.

I think that the problem gets down to are you just de facto denying people that choice. I think that's really the middle ground and the policy that we have to address.

We had hearings, as the chairman said, in a number of States. He was kind enough to come to my State of Maine. We had a witness from Dartmouth College in New Hampshire testify that their position on financial aid and a private college is the there ought to be $3,500 of self-help, or a significant amount of that; probably $1,000, at least, would come from summer jobs or work study, or a job on campus.

I guess the question is: Is it asking too much for a student of very little means to have $10,000 in debt at the end of 4 years of private education? Is that denying choice, or is that providing choice?

Mr. **Ford**. Would you comment on that?

Mr. **Gardner**. I will try to comment in ways that will be helpful to you.

We wrestled with this kind of issue on the National Commission that was studying student financial assistance and it's not easy to give a straightforward, simple answer to that question, very complex.

For example, it is one thing for a person to anticipate debt in the magnitude of $10,000 by way of your example, if the family from which that person comes is not unaccustomed to debt and its retirement

Second, the assumption of debt, say in the amount of $10,000 for one's undergraduate work, must be perceived by the perspective student as an investment worth making in contrast to other educational opportunities that student may have where the debt may be $2,000 as against $10,000. Is that extra $8,000 worth it or not? So that influences institutional choice—public, private, resident, as against being away from home, and so forth.

Thirdly, it is one thing to assume a $10,000 debt if one believes one's employment opportunities will be bright enough so as reasonably to anticipate possessing the capacity to retire it, and that influences student choice with respect to majors and clear decisions, deflecting bright young people into areas where the probability of being more financially capable is more attractive than what they might otherwise choose to do if that were not a variable, for example, teaching.

I have one of my daughters, for example, who is going to be an elementary teacher. If she had to complete her graduate school with a $10,000 or $15,000 debt, she would not be going into teaching. She would be doing something else because chances of repayment are not very great. So I think it does influence clear choices.

The final point I would like to make, I think there is a very subtle impact as to the effect of such debt on the decisions women make and men make, because for those disciplines and those fields, and those careers where women are disproportionately represented, they, by and large, are the lower paying fields and, therefore, their capacity to repay debt is on average less than the opportunity for males to repay their debt on average. So I think there is an unintended but, nevertheless, subtle form of discrimination that finds its way through this problem.

It's a long way around but I think those are variables that need to be allowed for in answering.

Mr. McKERNAN. I think your answer is it's a difficult problem.

You talked about the problem with the increase in loans versus grants and that problem of indebtedness. Realistically, with the kind of deficit that we have at the Federal level, we are not going to increase grants, you know, substantially, anyway. We may be able to do something but it really isn't going to be what would be needed to reverse that trend.

You just accept that, if you will, as potentially what is going to happen and answer this question, whether or not we ought to do a better job and try to target grants to those areas, especially in graduate study, where the potential for increasing your salary and therefore being able to pay your indebtedness is less—whether we ought to be telling people who go to law school to borrow the money, where somebody who is going into teaching should have greater access to the grants.

Mr. GARDNER. Yes, I think you should seriously consider that and I think it is an altogether legitimate approach.

Mr. McKERNAN. One final point is one that I have great interest in, and it's the whole question of the Guaranteed Student Loan Program and the continued subsidy of interest rates after graduation.

What would your reaction be to, again, trying to find some way to avoid the subsidy after a person has graduated for those people who clearly have the means to pay, and if we want to continue to subsidize interest rates during the repayment period, at least targeting those particular professions where the ability to pay is less? Would you think that would be a better way to expand the program for a lower cost, or do you see problems with that?

Mr. GARDNER. I take a general approach to this issue. The purpose of the Federal programs is to assist young people in meeting the cost of education, without which assistance they would very likely not be proceeding with their education. That's our objective here, is to tear down the financial barrier to further education. So we put people on a level playing field with respect to their financial capacity freely to choose to go on to college and university or not. That's what we are trying to do.

You are contending with enormous deficits, education is competing with all the other priorities at the Federal level. I am not unaware of that problem or unaware of the process that you go through trying to reconcile. I don't envy you your task. Therefore, any refinements in the program that can free money up for the most basic purpose these programs have, mainly, to assure that as many young people have the financial opportunity to proceed with their education as possible. Any refinements you can make, such that those who don't need that help, don't get it if they don't need it, as against those who need it, not getting it—I don't know if I expressed that quite right, but you have the general idea—I think we should look at.

It would be too bad if we had programs in place that had such momentum and such lack of refinement as to channel these precious dollars in ways that are less productive than you intended in the programs. So, refinements of these kind, sometimes they are not possible because the administrative costs and complications of handling them are just not worth it. Where you can find them, I encourage you aggressively to seek them.

Mr. McKernan. Finally, just to follow up on that particular issue. We have had some witnesses who have said the real issue for students who do borrow and are worried about the repayment, is monthly payments, not interest rates. Their concern is not how much they will ultimately be paying back but whether they can make the payments on a monthly basis.

I don't know whether you share that view or not, but what's your reaction to that, and if it is positive, would you think that it would be a tradeoff to allow people a longer time to make their repayments, those people in significant debt, but to require them to pay it back at a higher interest rate so that their monthly payments wouldn't be any greater but the cost to the Government would be less?

Mr. Gardner. You may wish to provide an option. That is, everyone's circumstances tend to be different. I can conceive of some people quite capable of paying it off in he period of time anticipated—borrow the money and pay it off. It's not a deterrent. Others might be worried about the prospect of paying it off in such an abbreviated period of time, especially if their opportunity for employment is more truncated, who would welcome the option. Whether that is administratively feasible or not, I don't know.

Mr. McKernan. Thank you. Thank you, Mr. Chairman.

Mr. Ford. Mr. Bruce.

Mr. Bruce. No questions, Mr. Chairman.

Mr. Ford. Mr. Gunderson.

Mr. Gunderson. Thank you, Mr. Chairman.

I think, looking at the panel, I am probably the only one here who has had an opportunity to hear President Gardner twice this morning.

Mr. Gardner. I'm sorry. [Laughter]

Mr. Gunderson. No, it has been interesting.

I would like to touch on a couple of issues I have not heard, at least addressed while I have been in attendance here. Coming from California, you certainly must be aware of certain testimony that was brought to our attention last year during reauthorization hearings, concerning the lack of minority students both in our graduate schools and in postgraduate teaching positions within our colleges and universities.

Do you want to comment as to the degree of the problem that exists in this area in California? And what, if anything, would you recommend to our subcommittee in the reauthorization process to try to deal with the issue of giving more minority students the opportunity for graduate degrees and subsequently opportunities in the teaching professions in our higher academic institutions following that?

Mr. **Gardner**. Thank you. I appreciate an opportunity to comment on that.

In California, this is a strategic issue. This is a strategic issue in our State because of the changing demographic character of California, as I am sure this committee knows.

In my 1986–87 budget request, which I submitted to the Regents last Friday, there is a comprehensive program intended to deal with this issue, at least to begin to deal with it, as a whole, as against taking various pieces and dealing with them as though they had no relationship to the other parts of the issue. It is a comprehensive, coherent, and I hope cohesive, effort.

We begin at the seventh grade level dealing with, as I mentioned earlier today, young people who show promise, who are less fully represented in the University of California student body and faculty than they should be, and need to be. We work with high school counselors trying to identify these young kids—mostly Hispanic and black.

The take rate from this pool of seventh and eighth graders with whom we work, and by that I mean the percentage of those with whom we work who in fact are qualified for admission to the University of California upon completion of their 12 grade, is about 27 percent of that pool; whereas, only 12½ percent of all high school graduates in the State are qualified for admission to the University of California. It is a very successful program.

However, one must allow for the fact that these kids were promising to start with, so it is a selective group, it is not a random group. But we start at the seventh grade and the salvage rate is quite high, it's good.

Now, that will help us in the short run to overcome the adverse circumstances in which these young people find themselves, whether it is in the home environment, or in the neighborhood, or in the school.

In the longer run, and this is another part of the proposal that is in my budget for next year for State funding, we are attempting to increase the number of feeder schools to the nine campuses of the University of California. And by feeder schools, I mean we have established high schools around the State who feed most of our students to us—large numbers of high schools who provide a handful of students to the University of California.

So we are attempting to move into high schools with predominantly minority enrollments and increase the number of feeder schools to the University of California by working with those schools as a whole and not working just with some promising young people within the schools. So we will do both.

Third, and we hope that these two efforts, together with some others I won't take your time with, will significantly increase the pool of qualified minority young people in our State who are qualified for the University of California. And when I mean qualified for it, I mean when we admit them, they succeed and don't fail, do they qualify. So they come in and they can compete and compete successfully.

We hope to have as part of this same package a range of programs so that at the undergraduate level we identify promising young minority students, including women, who can be helped along, and can be encouraged and assisted as is necessary, to realize their full potential, and to offset some of the adverse personal and social circumstances that they bring to their studies. So we try and compensate for that and help them along, and try and identify some of these young people and encourage them to go into the academic profession.

So when they complete their baccalaureate degree, we have identified them and will provide them fellowship assistance, other financial assistance, and none of this is from the Federal Government. It is coming from the State and the University of California's own resources, so as to encourage them to come into graduate school, especially in those fields where they are woefully underrepresented; that's in the hard sciences and in engineering, those fields, without neglecting the other, giving some special emphasis there.

So we put into effect for the first time this year a program that is intended to help those young people who are coming into the graduate schools and who are underrepresented on our faculties—black and Hispanic, principally, and women—the kind of financial assistance, research opportunities, and summer employment that will permit them to move through their graduate studies at a reasonable pace as against them stretching out their graduate studies because they have to work halftime at some job that bears no relationship to their career.

For those who are in the final stages of dissertation, we are providing President's Fellows $15,000 to $20,000 each, funded by the University of California from our own resources. There are 23 of them. I had a reception for them last week. So they can accelerate at the rate of which they move through their dissertation.

Then we set aside $500,000 for some postdoctoral students in those fields where minorities are severely underrepresented on our faculty to provide them postdoctoral work. We assign a senior faculty member to work with these young people, to give them kind of a mentoring relationship, help to ease them into this world. And then we try and place them—if not in our university, then in leading universities around the country.

Now, I mention this because you can't take any one part of this and suppose it will be sufficient without tying it to continue it. I think that is what we have been doing, by and large, we have taken a problem here that we identify and throw some money at it, take a problem here and throw some money at it. And however helpful that is, it seems to me not as helpful as it might be if we looked at it in a more realistic way; namely, recognizing that we will never increase the pool of minorities or women on our faculties if we don't get these young people into our graduate and professional schools. We won't get them into the graduate professional schools if we don't get them in as undergraduates, and we won't get them in as undergraduates if they aren't qualified when they come out of high school, and we won't get them out of high school if they drop out before they complete.

So we go back as far as we feel we can and pick it up as part of an ongoing effort, each piece tying to the other. And in that sense, we are attempting to do in a comprehensive way for this problem an opportunity, as it were, within the University of California, what the Morrell Act did for higher education generally. In some sense, that's almost what's missing today in the higher education arena. I mean, there have been times, a few, in the history of the country which has taken the problem as a whole and tried to deal with it. The GI bill was almost an inadvertence, as the chairman points out, however successful it proved to be.

So to the extent that the Higher Education Act can accord that overview, that global as against parochial perspective, you have a real opportunity, it seems to me, after all of the experience we have had since World War II with all these programs, to learn from our mistakes, to take advantage of our successes, and to try and identify gaps in the programs that perhaps we can reasonably expect to fill.

That's a long answer to your question but I hope it is responsive.

Mr. **Gunderson**. It is, and very interesting and enlightening.

The one thing you didn't focus a great deal on is the whole question of paying off loans at the graduate level which seems to be a real barrier for minority students. They look at the debt load and it is just so overwhelming that they choose not to go on to postgraduate work of any sort.

Mr. **Gardner**. I agree with you.

Mr. **Gunderson**. How do you handle that issue? Do you pay your minority professors well enough that they can pay off the loans?

Mr. **Gardner**. No.

Mr. **Gunderson**. Or do you provide special financial assistance?

Mr. **Gardner**. I am sorry, I should have commented on that. Your assessment of the problem is right on target. And it is not just minority students, but those especially because, by and large, economically they are down the ladder. But it is for nearly all students who look at another 4 or 5 years of graduate work, for example, in the humanities, or in the social and behaviorial sciences, or in the arts, measure the investment they are obliged to make, the debt they are obliged to assume, against the perspective income they are likely to earn, and they give it up and do something else. It is a real problem.

So with respect to the minority programs and the programs for women, to which I have made reference, no loans, they are all grants—the money the University of California set aside for this are not loan funds, they are grant funds.

Mr. **Gunderson**. Interesting. Thank you very much.

Mr. **Gardner**. And precisely for that reason, Congressman, the very point you raise, they are all grant funds.

Mr. **Gunderson**. Thank you.

Mr. **Ford**. Thank you.

Mr. Hayes.

Mr. Hayes. Mr. Chairman, we just got our notice, you know, to vote. I had intended to maybe ask for some elaboration on the part of the doctor's written and prepared testimony. Most of it, which I have had a chance to read and hear, I am in agreement with it. I am very interested, and I don't want to be redundant, in some of the conclusions you have reached as part of a commission, I guess, "A Nation at Risk." From what you have said, I must conclude that we can't continue to travel in the direction that we are going in the field of education and neglect some of the students that we need if we are going to be competitive in this world of ours.

I am particularly concerned about what you say on page 2 in your description of the Commission report on A Nation at Risk about protecting constitutional and civil rights for students and school personnel, and supporting teacher training in areas of critical shortage or key national needs. We have a great, great need for additional teachers. But for some reason or another, we aren't trying to accelerate the training program and do the things necessary that will make it conducive for people, particularly in the disadvantaged areas, to even want to become teachers. The salaries are too low and things of this sort.

As we look at the civil rights issue, which you mention specifically, I think, about the fact that a good group of, not only women as it relates to sex, but you mentioned minorities. We have had testimony before this committee where by the year 2000, almost 30 percent of the students eligible to go to college will be minorities. Yet, at the same time, we seem to be going in the other direction and trying to create the kind of a program that will make it possible for these people to go into school, and I think it's a luxury we can't afford to continue.

It will require almost a 180-degree turn from our current course to do something about it. I wondered if you had any specific suggestions as to how we might begin to turn and go the other way in view of some of the statements and positions that are being taken by particularly the Secretary of Education.

Mr. Gardner. The State of California, Congressman Hayes, by the year 2000, will have a State population of roughly 31 to 32 million people, of whom half will be ethnic minorities. And a disproportionate number of those, of course, will be in the schools. So the percentage will be even greater. So it is not an abstract question for us in California. It is a real question for us in California.

The question is what is one doing about it—when one considers the dropout rate of minority youth compared with white youth; the persistence rate beyond high school, minority youth compared with white youth; the retention rate in our undergraduate colleges and financial assistance of minority youth compared with white youth; the percentage of minority youth in our professional schools compared with white youth, and on our faculties.

So we know what the situation is. The question is what does one do about it? Because the present situation in the long run is untenable.

We need to look at the educational system as a whole more than I think we tend to do. It is not sufficient, for example, for higher education to offer its criticism of the public schools and walk away from it. We need to be part of the solution, not part of the problem. For example, as we have experienced not inconsequential erosion in the quality of school in the last 25 years in the country—fortunately, some of it is being reversed at this point. What have our colleges and universities done to try and resist that trend?

By and large, we have tended to accommodate the trend, and we have done it by offering more and more and more high school work in our college curriculum—now, we call it remedial work, but that's what we mean, it's high school work offered by colleges and universities for college and university credit. So to the extent that we do that, and we point out in A Nation at Risk, between 1975 and 1980, the percentage increase—there was an 82-percent increase in the remedial math offered by 4-year colleges and universities.

So to the extent our colleges and universities offer high school work and give college and university credit for it, undercuts the capacity of the high school to encourage young people to take high school work in high school. So they tend not to take it in high school, they take it in college.

So we have passed the problem all along the system. That's one point I would like to make. We need to take the system as a whole and look at it.

Second, we have to really mean what we say, and say what we mean, in this area. By and large, the conversation about affirmative action and the problem that we are addressing here is accompanied with both political overtones and connotations of one kind or another.

I think we should address the issue for what it is: A desire on the part of minority youth in this country to aspire to the American dream, just as everyone else has. That's what it's all about. And how can we encourage these young people both to stay in school, to aspire to a more ambitious future, to provide them the tools and knowledge and capacity to learn that they need to possess in order to move on from one level to another? And we don't do it by expecting less of them than they are capable of giving. That's my own view of it. And we have been. We have been expecting, by and large, less of our young people, and they have been giving it to us.

I think they will respond to the kind of challenges that are out there. It will require cooperation between the States, the schools, the universities and colleges of the country, and the Federal Government. We all have a role to play.

Mr. **Dymally**. Excuse me, let me ask one question quickly. I don't think there is time for a response now but you might want to write me a letter about it. You placed great emphasis on teacher training in your report, A Nation at Risk, and yet, Berkeley graduated only 40 teachers as compared to 6,000 by the State university system.

The second point I want to raise is that you monopolize all of the research money in California. Should we not give the State university and college system some research money for child growth and development?

I don't think we have time for a response but I want you to smoke that in your pipe and send the response to the committee.

Mr. **Gardner**. Thank you.

Mr. Ford. Thank you very much. We are being interrupted by the business out there.

I am sorry that we had to start this hearing so late this morning because of tough schedules by everybody concerned. I will adjourn the hearing at this time and ask you to stay there for just a minute.

Unless I am visited by a miracle, this is the last reauthorization hearing before we start markup, and presently we are scheduled to start that on the 8th of October. We fully expect at this stage to have a piece of legislation marked up in adequate time to be knocking on the door of the Rules Committee before the end of this month and out of here before the recess with the reauthorization.

I am encouraged by the cooperation I have had from the members in both parties on the committee to believe that that's possible.

Dr. Gardner and I have been through a number of experiences together and at the same time, in different positions. You know, Dave, that there's a point that you reach where you feel it is starting to come together and people are beginning to understand what it is they want to do.

I have a very high degree of optimism these days that we are reaching that stage and that the feeling of cooperation and commitment that has been shown by this subcommittee—we have really worn them out. But it has been a long, hard road, and they have worked very hard. I think that they know as much about what the options are as any subcommittee that has acted on authorization or reauthorization in the past. A good deal of that was the effort you participated in in both commissions that we have been talking about here this morning, and the tremendous support we have had from people like you, the professionals in higher education, who have in no way been at all reticent about giving us suggestions about how to do things.

We started this process early by Mr. Coleman and I asking some 140 groups that we identified as people who purport to speak for higher education and postsecondary education issues, and we invited them to give us their suggestions about what the perfect legislation should look like, and invited them not to send us resolutions of goodwill and broad-brush ideas, but to tell us specifically how it should look.

We had responses in the initial stages within the deadline by about 110, I guess, of them. And as a person in higher education, you will know that that's an extraordinarily high degree of cooperation from that community. They didn't stop with that, however. The several volumes that were put together have been dog-earred in some parts of it because there's a great deal of detail, and some of the associations have sort of come up and backed off, and come up and backed off, but gradually there is more commonality in their approach than we started out with.

So we are optimistic that we are going to be able to do some of the things that you talked about. And particularly, we are not doing violence to the reauthorization global figures that we have to deal with, fine-tune a number of these programs and, indeed, shift some of the resources without doing damage to the places we are shifting from, so that we will be able to put more concentration than we have had in the past in some areas.

It still remains to be seen whether this will happen. There are some groups that feel that they haven't quite reached perfection they would like to have from their own perspective. But the committee has shown a remarkable resistence to the siren song of any one particular type of institution or group of types of institutions to consider the problem from their perspective and forget the rest of it.

I am satisfied that we are ready to start going now and you will be hearing a lot from us in the next few weeks as we are doing the serious part.

I want to thank you with all the sincerity I can muster, for your help today and before today in this effort, and look forward to seeing you when we sign a bill.

Mr. **Gardner.** Thank you, Mr. Chairman. It is a privilege to help in any way we possibly can. I am well aware of the schedule you and your colleagues have followed. It has been a vigorous, demanding, exacting schedule. I think not only the higher education community, but the country is very much in your debt for this competent and genuine effort to give life to a bill that is responsive to the Nation's needs in this area.

Mr. **Ford.** Thank you very much. That's it.

[Whereupon, at 12:20 p.m., the subcommittee adjourned.]

[Additional material submitted for the record follows:]

Prepared Statement of the American Association of Retired Persons

Mr. Chairman and Members of the Postsecondary Education Subcommittee, the American Association of Retired Persons appreciates the opportunity to submit testimony at your hearings on reauthorizing higher education legislation.

Today the concept of lifelong learning has clearly "come of age." In a fast changing society, citizens of all ages, including older Americans, must acquire the necessary skills to enable them to cope with rapid technological and social advances.

This is certainly true in America. Many new jobs today never even existed 5, 10 or 15 years ago. The computer, for example, has ushered in numerous new occupations and employment opportunities. It has also necessitated retraining for persons whose skills have been rendered obsolete by technological advances.

A. CHANGING WORK AND EDUCATION PATTERNS

Quite clearly, the "graying" of the work force is already forcing reassessment of existing education and work patterns. Unfortunately, today, education and work are oftentimes an "all-or-nothing" proposition. People may go to school full-time for 12 to 16 years, work full-time for another 40 to 45 years and then retire abruptly at 65 or an earlier age. Many older Americans would like a different mixture.

Currently, postsecondary education tilts very heavily toward the more traditional, younger students—those persons in the 18-to-24 age bracket. Educational planning rarely considers the needs of mature individuals. Our surveys reveal that persons in their 40's, 50's and above would like greater educational opportunities. The clear message from our 20-million membership is that older Americans are keenly interested in continuing their education or pursuing remedial activities if their prior education is greatly outdated or at a lower level.

Postsecondary education is often essential for older persons who must learn new skills, especially when their present ones have been displaced by technology. A 1981 Louis Harris poll revealed that about two out of five persons (39 percent) 55 to 64 years old would either be interested or very interested in learning new skills or participating in a job training program to obtain new employment. That same poll made it clear that employment is a major reason for older persons to enroll in training activities. For 56 percent of respondents 55 to 64 years old who enrolled in educational courses, the primary motivation was to acquire marketable skills.

B. FOCUS MORE ON NEEDS OF MATURE, NONTRADITIONAL STUDENTS

These facts and other considerations provide compelling arguments to focus more postsecondary education activities on the mature, nontraditional student. This is clearly a "win-win" proposition from all vantage points. It is beneficial for older students, postsecondary institutions, and our nation.

In 1980, more than 47 million Americans were 55 or older, about one out of every five persons (20.9 percent) in the United States. By the year 2000, this number will increase to nearly 59 million. During the first 20 years of the 21st century, the 55-plus population will soar to almost 92 million. At that time, about one out of three persons (30.9 percent) in the U.S. will be 55 or older. Clearly, there is a large potential market for colleges, universities, and other nontraditional institutions to serve.

Moreover, it is certainly in the interest of educational institutions to seek out the mature, nontraditional students because many colleges and universities can expect drops in enrollment, especially among the traditional 18-to-24 year old students. K. Patricia Cross perhaps summed up the advantages of this partnership best when she said:

"The major conclusion to be drawn from the above facts is that the elderly's potential for growth in educational participation is enormous. They are under-represented now, but their numbers will grow; they have time and health for participation in a wide variety of activities. At the same time, it is clear that many colleges are seeking new clientele to cushion the drop in the 18 to 24-year olds in the population and are ready and eager to serve older learners. Perhaps the two needs can be brought together to the ultimate benefit of the total society."

Today continuing education is a high priority need for mature persons who must keep abreast of changing developments in their trade, business or profession. It is also valuable for those individuals who must change their careers during mid life. Indeed, most part-time older students who return to college do so to upgrade their job skills or make possible a career switch.

The payoff for our nation as well as older Americans hinges, though, on a more readily available continuing education program which is responsive to the special needs of older Americans.

C. RECOMMENDATIONS

AARP has two major recommendations to ensure that the Higher Education Act focuses more attention on the mature, nontraditional student.

First, all types of student aid under the Higher Education Act should be available to less than half-time students, including loans, Pell grants, fellowships, and other financial support. Currently, federal financial assistance is available only for students enrolled half-time or more. Many older persons who are returning to school after several years can only take one or two courses because they may be working and raising a family at the same time. Quite often, their responsibilities make it impossible to be enrolled for the required number of units to qualify for federal assistance.

The current high cost of education makes it absolutely essential that persons in their 40's, 50's and above be able to obtain student assistance. Otherwise, they may simply be priced out of the market. This, in turn, can affect their ability to participate effectively in our society.

In a rapidly changing economy, financial assistance to a middle-aged or older student can be as critical to success as it is for younger full-time student embarking on a first carer. A classis example may be a middle-aged displaced worker or a displaced homemaker who must return to the classroom to become employed again.

Currently, most student assistance is provided to persons in the 18-to-24 age category. Nontraditional older students are largely overlooked or ignored by existing student aid programs. The availability of student aid to less than half-time students would be an important step in assuring that older, nontraditional students can return to school more readily to stay current of constantly changing requirements in their job.

Second, the experience of AARP's Institute of Lifetime Learning demonstrates that a need exists to improve support services for older Americans who take refresher or other continuing education courses. At this time, there are probably more questions than answers concerning the problems and solutions. For this reason, AARP recommends that there be a provision in the Higher Education Act for a special demonstration program focusing specifically on issues relating to continuing education for older mature students. These would include:

What are the major barriers which prevent or impede older adults from participating in continuing education programs?

What steps can colleges, universities, and nontraditional education institutions take to promote lifelong learning tailored to the needs of mature, nontraditional students?

How can support services such as tutorial assistance, remedial aid, dependent care, the use of research facilities, and others be more readily available to nontraditional, mature students? Present legislation, for example, provides for day care allowances for younger dependents. However, a mature student with an older dependent is not eligible for this aid, although the need may be as great or greater.

What are the high priority support services that nontraditional, mature students need?

D. CONCLUSION

AARP has taken the lead in promoting continuing education opportunities through our Institute of Learning, which was established in 1963. The Institute assists older persons in meeting their educational objectives through a wide range of activities and programs.

AARP strongly believes that educational opportunities should be available for all age groups. Education should be a lifelong process to provide both cultural enrichment as well as the tools to compete and adapt to a rapidly changing society.

Older Americans, like younger Americans, should have a wide range of education options, depending upon their needs and desires. Our two proposals, we sincerely believe, will help to assure that the continuing education needs of older, nontraditional students will be better served under the Higher Education Act.

We believe these proposals are realistic and fiscally responsible. AARP looks forward to working with the Subcommittee in achieving these objectives.

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